

# NACOmatic

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## GENERAL INFORMATION

This Airport/Facility Directory is a Civil Flight Information Publication published and distributed every eight weeks by the National Aeronautical Charting Office, FAA, Department of Transportation, Silver Spring, Maryland 20910. It is designed for use with Aeronautical Charts covering the conterminous United States, Puerto Rico and the Virgin Islands.

This directory contains all open to the public airports, seaplane bases and heliports, military facilities, and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally, this directory contains communications data, navigational facilities and certain special notices and procedures.

Military data contained within this publication is provided by the National Geospatial-Intelligence Agency and is intended to provide reference data for military and/or joint civil/military airports. Not all military data contained in this publication is applicable to civil users.

## CORRECTIONS, COMMENTS, AND/OR PROCUREMENT

**CRITICAL** information such as equipment malfunction, abnormal field conditions, hazards to flight, etc., should be reported as soon as possible to the nearest FAA facility, either in person or by reverse charge telephone call.

**FOR AIRPORT SUPPLEMENT REVISIONS FORM VISIT WEB SITE:** <http://nfdc.faa.gov/portal/airportchanges.do>

FAA, Aeronautical Information Services, ATO-R, Rm. 626  
800 Independence Ave., SW  
Washington, DC 20591  
Telephone 1-866-295-8236  
Fax 202-267-5322  
Email 9-ATOR-HQ-AIS-AIRPORTCHANGES@FAA.GOV

NOTICE: Changes must be received by the Aeronautical Information Services as soon as possible but not later than the "cut-off" dates listed below to assure publication on the desired effective date.

	Airport Information	Airspace Information*
Effective Date	Cut-off date	Cut-off date
22 Oct 09	9 Sep 09	20 Aug 09
17 Dec 09	4 Nov 09	15 Oct 09
11 Feb 10	30 Dec 09	10 Dec 09
8 Apr 10	24 Feb 10	4 Feb 10
3 Jun 10	21 Apr 10	1 Apr 10
29 Jul 10	16 Jun 10	27 May 10

\*Including changes to preferred routes and graphic depictions on charts.

**FOR CHARTING ERRORS CONTACT:**

FAA, National Aeronautical Charting Office, ATO-W  
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Silver Spring, MD 20910-3281  
Telephone 1-800-626-3677  
Email [9-AMC-Aerochart@faa.gov](mailto:9-AMC-Aerochart@faa.gov)

Frequently asked questions (FAQs) are answered on our web site at [www.naco.faa.gov](http://www.naco.faa.gov).  
See the FAQs prior to contact via toll free number.

**FOR PROCUREMENT CONTACT:**

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Email [9-AMC-Chartsales@faa.gov](mailto:9-AMC-Chartsales@faa.gov)  
Telephone 1-800-638-8972  
Fax 301-436-6829  
or any authorized FAA Chart Agent

**New or Changed Information**—To alert users of new information or changes to information from the previous issue, a vertical line will be portrayed in the outside margin and extending the full length of the new and/or revised data. This will not apply to the front cover or the airport/facility directory listing.

This Airport/Facility Directory comprises part of the following sections of the United States Aeronautical Information Publication (AIP): GEN, ENR and AD.



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## ABBREVIATIONS

The following abbreviations/acronyms are those commonly used within this Directory. Other abbreviations/acronyms may be found in the Legend and are not duplicated below. The abbreviations presented are intended to represent grammatical variations of the basic form. (Example—"req" may mean "request", "requesting", "requested", or "requests").

AAF	Army Air Field	byd	beyond
AB	Airbase	C	Commercial Circuit (Telephone)
abv	above	CGAF	Coast Guard Air Facility
ACC	Air Combat Command; Area Control Center	CGAS	Coast Guard Air Station
acft	aircraft	CIV	Civil
ADCC	Air Defense Control Center	clsd	closed
AER	approach end rwy	comd	command
AFB	Air Force Base	CONUS	Continental United States
AFHP	Air Force Heliport	CSTMS	Customs
afld	airfield	ctc	contact
AFOD	US Army Flight Operations Detachment	ctl	control
AFRC	Armed Forces Reserve Center/Air Force Reserve Command	dalgt	daylight
AFSS	Automated Flight Service Station	Dec	December
AG	Agriculture	DIAP	DoD Instrument Approach Procedure
A-GEAR	Arresting Gear	DoD	Department of Defense
AGL	above ground level	DSN	Defense Switching Network (Telephone)
AHP	Army heliport	dspld	displaced
ALS	Approach Light System	durn	duration
alt	altitude	eff	effective
AMC	Air Mobility Command	emerg	emergency
ANGS	Air National Guard Station	EOR	End of Runway
apch	approach	ETA	Estimated Time of Arrival
Apr	April	ETD	Estimated Time of Departure
APU	Auxiliary Power Unit	exc	except
ARB	Air Reserve Base	extd	extend
arpt	airport	FBO	fixed-base operator
ARS	Air Reserve Station	Feb	February
AS	Air Station	fld	field
ASDE-X	Airport Surface Detection Equipment—Model X	FLIP	Flight Information Publication
ASU	Aircraft Starting Unit	flt	flight
ATC	Air Traffic Control	flw	follow
Aug	August	Fri	Friday
AUW	All Up Weight (gross weight)	FSS	Flight Service Station
avbl	available	GA	glide angle
bcn	beacon	GCA	Ground Controlled Approach
blo	below	GS	glide slope
		haz	hazard
		HQ	Headquarters

CONTINUED ON NEXT PAGE

## CONTINUED FROM PRECEDING PAGE

hr	hour	npi	non precision instrument
IAP	Instrument Approach Procedure	NS ABTMT	Noise Abatement
ICAO	International Civil Aviation Organization	NSTD	nonstandard
IFR	Instrument Flight Rules	ntc	notice
ILS	Instrument Landing System	obsn	observation
IM	Inner Marker	Oct	October
IMG	Immigration	OLF	Outlying Field
incr	increase	opr	operate, operator, operational
indef	indefinite	ops	operations
ints	intensity	OTS	out of service
invo	in the vicinity of	ovrn	overrun
IMC	Instrument Meteorological Conditions	PAEW	personnel and equipment working
Jan	January	pat	pattern
JASU	Jet Aircraft Starting Unit	p-line	power line
JOAP	Joint Oil Analysis Program	PMSV	Pilot-to-Metro Service
JOSAC	Joint Operational Support Airlift Center	POL	Petrol, Oils and Lubricants
JRB	Joint Reserve Base	PPR	prior permission required
Jul	July	PRM	Precision Runway Monitoring
Jun	June	PTD	Pilot to Dispatcher
Kt	Knots	RAMCC	Regional Air Movement Control Center
LAA	Local Airport Advisory	req	request
LAHSO	Land and Hold Short Operations	rgt tfc	right traffic
lbs	pounds	RON	Remain Overnight
ldg	landing	rqr	require
lgt	lighted	rstd	restricted
lgts	lights	RSRS	reduced same runway separation
LMM	Compass locator at Middle Marker ILS	rw	runway
LOC	Localizer	Sat	Saturday
LOM	Compass locator at Outer Marker ILS	SELF	Strategic Expeditionary Landing Field
ltd	limited	Sep	September
MACC	Military Area Control Center	SFA	Single Frequency Approach
Mar	March	sfc	surface
MCAF	Marine Corps Air Facility	SFRA	Special Flight Rules Area
MICALF	Marine Corps Auxiliary Landing Field	SOAP	Spectrometric Oil Analysis Program
MCAS	Marine Corps Air Station	SOF	Supervisor of Flying
MCB	Marine Corps Base	SPB	Seaplane Base
med	medium	SR	sunrise
METRO	Pilot-to-Metro voice call	SS	sunset
Mil	military	std	standard
min	minute	Sun	Sunday
MLS	Microwave Landing System	svc	service
MM	Middle Marker of ILS	tfc	traffic
Mon	Monday	thld	threshold
MP	Maintenance Period	Thu	Thursday
MSL	mean sea level	tkf	take-off
MSAW	minimum safe altitude warning	tmp	temporary
NAAS	Naval Auxiliary Air Station	tran	transient
NADC	Naval Air Development Center	Tue	Tuesday
NADEP	Naval Air Depot	twr	tower
NAEC	Naval Air Engineering Center	twy	taxiway
NAES	Naval Air Engineering Station	UC	Under Construction
NAF	Naval Air Facility	USA	United States Army
NALCO	Naval Air Logistics Control Office	USAF	United States Air Force
NALO	Navy Air Logistics Office	USCG	United States Coast Guard
NALF	Naval Auxiliary Landing Field	USN	United States Navy
NAS	Naval Air Station	V	Defense Switching Network (telephone, formerly AUTOVON)
NAWC	Naval Air Warfare Center	VFR	Visual Flight Rules
NAWS	Naval Air Weapons Station	VIP	Very Important Person
ngt	night	VMC	Visual Meteorological Conditions
NOLF	Naval Outlying Field	Wed	Wednesday
Nov	November	wx	weather

# DIRECTORY LEGEND

## SAMPLE

① CITY NAME  
 ② AIRPORT NAME (ALTERNATE NAME) (LTS) (KLTS) CIV/MIL 3 N UTC-6(-5DT) N34°41.93' W99°20.20' JACKSONVILLE  
 ③ 200 B S4 FUEL 100 OX 1 TPA-1000(800) AOE Class IV, ARFF Index A NOTAM FILE ORL Not insp. COPTER  
 ④ ⑤ ⑥ ⑦ ⑧ ⑨ H-46, L-19C IAP, DIAP, AD

⑩ RWY 18-36: H12004X200 (ASPH-CONC-GRVD)  
 S-90, D-160, DT-300 PCN 80 R/B/W/T HIRL CL  
 RWY 18: LDIN. MALSF. TDZL. REIL. PAPI(P2R)—GA 3.0° TCH 36'.  
 Thld dsplcd 300'. Trees. Rgt tfc. 0.3% up.  
 RWY 36: ALSF1. 0.4% down.  
 RWY 09-27: H6000X150 (ASPH) MIRL  
 RWY 173-353: H3515X150 (ASPH-PFC) AUW PCN 59 F/A/W/T

⑪ LAND AND HOLD SHORT OPERATIONS  
 LANDING HOLD SHORT POINT DIST AVBL  
 RWY 18 09-27 6500  
 RWY 36 09-27 5400

⑫ RUNWAY DECLARED DISTANCE INFORMATION  
 RWY 18: TORA-12004 TODA-12704 ASDA-11704 LDA-11504  
 RWY 36: TORA-12004 TODA-12004 ASDA-12004 LDA-11704

⑬ ARRESTING GEAR/SYSTEM  
 RWY 18 → HOOK E5 (65' OVRN) BAK-14 BAK-12B (1650')  
 BAK-14 BAK-12 (B) (1087') HOOK E5 (74' OVRN) ← RWY 36

⑭ MILITARY SERVICE: A-GEAR E-5 connected on dep end, disconnected on  
 apch end. JASU 3(AM32A-60) 2(A/M32A-86)

⑮ ⑯ FUEL J8(Mil) (NC-100, A) FLUID W SP PRESAIR LOX  
 OIL O-128 TRAN ALERT Avbl 1300-0200Z†, svc limited weekends.

⑰ ⑱ AIRPORT REMARKS: Special Air Traffic Rules—Part 93, see Regulatory Notices. Attended 1200-0300Z†. Parachute  
 Jumping. Deer invov arpt. Heavy jumbo jet training surface to 9000'. Twy A clsd indef. Flight Notification Service  
 (ADCUS) avbl.

⑲ MILITARY REMARKS: ANG PPR/Official Business Only. Base OPS DSN 638-4390, C503-335-4222. Ctc Base OPS 15  
 minutes prior to ldg and after dep. Limited tran parking.

⑳ WEATHER DATA SOURCES: AWOS-1 120.3 (202) 426-8000. LLWAS.

㉑ COMMUNICATIONS: SFA ATIS 127.25 273.5 (202) 426-8003 UNICOM 122.95 PTD 372.2  
 NAME FSS (ORL) on arpt. 123.65 122.65 122.2  
 NAME RCO 112.2T 112.1R (NAME RADIO)  
 ㉒ NAME APP/DEP CON 128.35 257.725 (1200-0400Z†)  
 TOWER 119.65 255.6 (1200-0400Z†) GND CON 121.7 GCO 135.075 (ORLANDO CLNC) CLNC DEL 125.55  
 NAME COMD POST (GERONIMO) 311.0 321.4 6761 PMSV METRO 239.8 NAME OPS 257.5

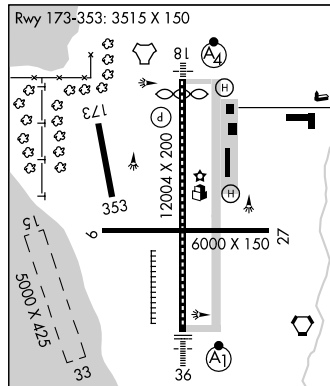
㉓ AIRSPACE: CLASS B See VFR Terminal Area Chart.

㉔ RADIO AIDS TO NAVIGATION: NOTAM FILE ORL. VHF/DF ctc FSS.  
 (H) VORTAC 112.2 MCO Chan 59 N28°32.55' W81°20.12' at fld. 1110/8E.  
 (H) TACAN Chan 29 CBU (109.2) N28°32.65' W81°21.12' at fld. 1115/8E.  
 HERNY NDB (LOM) 221 OR N28°37.40' W81°21.05' 177° 5.4 NM to fld.  
 ILS/DME 108.5 I-ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.  
 ASR/PAR (1200-0400Z†)

㉕ COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.

HELIPAD H1: H100X75 (ASPH)  
 HELIPAD H2: H60X60 (ASPH)  
 HELIPORT REMARKS: Helipad H1 lctd on general aviation side and H2 lctd on air carrier side of arpt.

187 TPA 1000(813)  
 WATERWAY 15-33: 5000X425 (WATER)  
 SEAPLANE REMARKS: Birds roosting and feeding areas along river banks. Seaplanes operating adjacent to SW side of  
 arpt not visible from twr and are required to ctc twr.



All bearings and radials are magnetic unless otherwise specified.  
 All mileages are nautical unless otherwise noted.

All times are Coordinated Universal Time (UTC) except as noted.

All elevations are in feet above/below Mean Sea Level (MSL) unless otherwise noted.

The horizontal reference datum of this publication is North American Datum of 1983 (NAD83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

10

# SKETCH LEGEND

## RUNWAYS/LANDING AREAS

Hard Surfaced .....	
Metal Surface .....	
Sod, Gravel, etc. ....	
Light Plane, ....	
Ski Landing Area or Water	
Under Construction .....	
Closed .....	
Helicopter Landings Area .....	
Displaced Threshold .....	
Taxiway, Apron and Stopways ..	

## MISCELLANEOUS BASE AND CULTURAL FEATURES

Buildings .....	
Power Lines .....	
Fence .....	
Towers .....	
Tanks .....	
Oil Well .....	
Smoke Stack .....	
Obstruction .....	
Controlling Obstruction .....	
Trees .....	
Populated Places .....	
Cuts and Fills .....	
Cliffs and Depressions ..	
Ditch .....	
Hill .....	

## RADIO AIDS TO NAVIGATION

VORTAC ...		VOR .....	
VOR/DME ...		NDB .....	
TACAN ...		NDB/DME ....	

## MISCELLANEOUS AERONAUTICAL FEATURES

Airport Beacon .....	
Wind Cone .....	
Landing Tee .....	
Tetrahedron .....	
Control Tower .....	

## APPROACH LIGHTING SYSTEMS

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g. (A1) Negative symbology, e.g., (A1) indicates Pilot Controlled Lighting (PCL).

Runway Centerline Lighting .....	
(A) Approach Lighting System ALSF-2 ..	
(A1) Approach Lighting System ALSF-1 ..	
(A2) Short Approach Lighting System SALS/SALSF .....	
(A3) Simplified Short Approach Lighting System (SSALR) with RAIL .....	
(A4) Medium Intensity Approach Lighting System (MALSR and MALSF)/(SSALS and SSALF) .....	
(A5) Medium Intensity Approach Lighting System (MALSR) and RAIL .....	
(+) Omnidirectional Approach Lighting System (ODALS) .....	
(D) Navy Parallel Row and Cross Bar ..	
(F) Air Force Overrun .....	
(V) Visual Approach Slope Indicator with Standard Threshold Clearance provided	
(V2) Pulsating Visual Approach Slope Indicator (PVASI)	
(V3) Visual Approach Slope Indicator with a threshold crossing height to accommodate long bodied or jumbo aircraft	
(V4) Tri-color Visual Approach Slope Indicator (TRCV)	
(V5) Approach Path Alignment Panel (APAP)	
(P) Precision Approach Path Indicator (PAPI)	

## LEGEND

This directory is a listing of data on record with the FAA on all open to the public airports, military facilities and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally this listing contains data for associated terminal control facilities, air route traffic control centers, and radio aids to navigation within the conterminous United States, Puerto Rico and the Virgin Islands. Joint civil/military and civil airports are listed alphabetically by state, associated city and airport name and cross-referenced by airport name. Military facilities are listed alphabetically by state and official airport name and cross-referenced by associated city name. Nav aids, flight service stations and remote communication outlets that are associated with an airport, but with a different name, are listed alphabetically under their own name, as well as under the airport with which they are associated.

The listing of an open to the public airport in this directory merely indicates the airport operator's willingness to accommodate transient aircraft, and does not represent that the facility conforms with any Federal or local standards, or that it has been approved for use on the part of the general public. Military and private use facilities published in this directory are open to civil pilots only in an emergency or with prior permission. See Special Notice Section, Civil Use of Military Fields.

The information on obstructions is taken from reports submitted to the FAA. Obstruction data has not been verified in all cases. Pilots are cautioned that objects not indicated in this tabulation (or on the airports sketches and/or charts) may exist which can create a hazard to flight operation. Detailed specifics concerning services and facilities tabulated within this directory are contained in the Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

The legend items that follow explain in detail the contents of this Directory and are keyed to the circled numbers on the sample on the preceding pages.

### ① CITY/AIRPORT NAME

Civil and joint civil/military airports and facilities in this directory are listed alphabetically by state and associated city. Where the city name is different from the airport name the city name will appear on the line above the airport name. Airports with the same associated city name will be listed alphabetically by airport name and will be separated by a dashed rule line. A solid rule line will separate all others. FAA approved helipads and seaplane landing areas associated with a land airport will be separated by a dotted line. Military airports are listed alphabetically by state and official airport name.

### ② ALTERNATE NAME

Alternate names, if any, will be shown in parentheses.

### ③ LOCATION IDENTIFIER

The location identifier is a three or four character FAA code followed by a four-character ICAO code assigned to airports. ICAO codes will only be published at joint civil/military, and military facilities. If two different military codes are assigned, both codes will be shown with the primary operating agency's code listed first. These identifiers are used by ATC in lieu of the airport name in flight plans, flight strips and other written records and computer operations. Zeros will appear with a slash to differentiate them from the letter "O".

### ④ OPERATING AGENCY

Airports within this directory are classified into two categories, Military/Federal Government and Civil airports open to the general public, plus selected private use airports. The operating agency is shown for military, private use and joint civil/military airports. The operating agency is shown by an abbreviation as listed below. When an organization is a tenant, the abbreviation is enclosed in parenthesis. No classification indicates the airport is open to the general public with no military tenant.

A	US Army	MC	Marine Corps
AFRC	Air Force Reserve Command	N	Navy
AF	US Air Force	NAF	Naval Air Facility
ANG	Air National Guard	NAS	Naval Air Station
AR	US Army Reserve	NASA	National Air and Space Administration
ARNG	US Army National Guard	P	US Civil Airport Wherein Permit Covers
CG	US Coast Guard		Use by Transient Military Aircraft
CIV/MIL	Joint Use Civil/Military	PVT	Private Use Only (Closed to the Public)
DND	Department of National Defense Canada		

### ⑤ AIRPORT LOCATION

Airport location is expressed as distance and direction from the center of the associated city in nautical miles and cardinal points, e.g., 4 NE.

### ⑥ TIME CONVERSION

Hours of operation of all facilities are expressed in Coordinated Universal Time (UTC) and shown as "Z" time. The directory indicates the number of hours to be subtracted from UTC to obtain local standard time and local daylight saving time UTC-5(-4DT). The symbol ‡ indicates that during periods of Daylight Saving Time effective hours will be one hour earlier than shown. In those areas where daylight saving time is not observed the (-4DT) and ‡ will not be shown. Daylight saving time is in effect from 0200 local time the second Sunday in March to 0200 local time the first Sunday in November. Canada and all U.S. Conterminous States observe daylight saving time except Arizona and Puerto Rico, and the Virgin Islands. If the state observes daylight saving time and the operating times are other than daylight saving times, the operating hours will include the dates, times and no ‡ symbol will be shown, i.e., April 15-Aug 31 0630-1700Z, Sep 1-Apr 14 0600-1700Z.

# **7 GEOGRAPHIC POSITION OF AIRPORT—AIRPORT REFERENCE POINT (ARP)**

Positions are shown as hemisphere, degrees, minutes and hundredths of a minute and represent the approximate geometric center of all usable runway surfaces.

# **8 CHARTS**

Charts refer to the Sectional Chart and Low and High Altitude Enroute Chart and panel on which the airport or facility is located. Helicopter Chart locations will be indicated as COPTER.

# **9 INSTRUMENT APPROACH PROCEDURES, AIRPORT DIAGRAM**

IAP indicates an airport for which a prescribed (Public Use) FAA Instrument Approach Procedure has been published. DIAP indicates an airport for which a prescribed DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures. See the Special Notice Section of this directory, Civil Use of Military Fields and the Aeronautical Information Manual 5-4-5 Instrument Approach Procedure Charts for additional information. AD indicates an airport for which an airport diagram has been published. Airport diagrams are located in the back of each A/FD volume alphabetically by associated city and airport name.

# **10 AIRPORT SKETCH**

The airport sketch, when provided, depicts the airport and related topographical information as seen from the air and should be used in conjunction with the text. It is intended as a guide for pilots in VFR conditions. Symbology that is not self-explanatory will be reflected in the sketch legend. The airport sketch will be oriented with True North at the top. Airport sketches will be added incrementally.

# **11 ELEVATION**

The highest point of an airport's usable runways measured in feet from mean sea level. When elevation is sea level it will be indicated as "00". When elevation is below sea level a minus "-" sign will precede the figure.

# **12 ROTATING LIGHT BEACON**

B indicates rotating beacon is available. Rotating beacons operate sunset to sunrise unless otherwise indicated in the AIRPORT REMARKS or MILITARY REMARKS segment of the airport entry.

# **13 SERVICING—CIVIL**

S1: Minor airframe repairs.	S5: Major airframe repairs.
S2: Minor airframe and minor powerplant repairs.	S6: Minor airframe and major powerplant repairs.
S3: Major airframe and minor powerplant repairs.	S7: Major powerplant repairs.
S4: Major airframe and major powerplant repairs.	S8: Minor powerplant repairs.

# **14 FUEL**

CODE	FUEL	CODE	FUEL
80	Grade 80 gasoline (Red)	B+	Jet B, Wide-cut, turbine fuel with FS-II*, FP** minus 50° C.
100	Grade 100 gasoline (Green)	J4 (JP4)	(JP-4 military specification) FP** minus 58° C.
100LL	100LL gasoline (low lead) (Blue)	J5 (JP5)	(JP-5 military specification) Kerosene with FS-11, FP** minus 46°C.
115	Grade 115 gasoline (115/145 military specification) (Purple)	J8 (JP8)	(JP-8 military specification) Jet A-1, Kerosene with FS-II*, FP** minus 47°C.
A	Jet A, Kerosene, without FS-II*, FP** minus 40° C.	J8+100	(JP-8 military specification) Jet A-1, Kerosene with FS-II*, FP** minus 47°C, with-fuel additive package that improves thermo stability characteristics of JP-8.
A+	Jet A, Kerosene, with FS-II*, FP** minus 40°C.	J	(Jet Fuel Type Unknown)
A1	Jet A-1, Kerosene, without FS-II*, FP** minus 47°C.	MOGAS	Automobile gasoline which is to be used as aircraft fuel.
A1+	Jet A-1, Kerosene with FS-II*, FP** minus 47° C.		
B	Jet B, Wide-cut, turbine fuel without FS-II*, FP** minus 50° C.		

\*(Fuel System Icing Inhibitor)

\*\*(Freeze Point)

**NOTE:** Certain automobile gasoline may be used in specific aircraft engines if a FAA supplemental type certificate has been obtained. Automobile gasoline, which is to be used in aircraft engines, will be identified as "MOGAS", however, the grade/type and other octane rating will not be published.

Data shown on fuel availability represents the most recent information the publisher has been able to acquire. Because of a variety of factors, the fuel listed may not always be obtainable by transient civil pilots. Confirmation of availability of fuel should be made directly with fuel suppliers at locations where refueling is planned.

# **15 OXYGEN—CIVIL**

OX 1 High Pressure	OX 3 High Pressure—Replacement Bottles
OX 2 Low Pressure	OX 4 Low Pressure—Replacement Bottles

# **16 TRAFFIC PATTERN ALTITUDE**

Traffic Pattern Altitude (TPA)—The first figure shown is TPA above mean sea level. The second figure in parentheses is TPA above airport elevation. Multiple TPA shall be shown as "TPA—See Remarks" and detailed information shall be shown in the Airport or Military Remarks Section. Traffic pattern data for USAF bases, USN facilities, and U.S. Army airports (including those on which ACC or U.S. Army is a tenant) that deviate from standard pattern altitudes shall be shown in Military Remarks.

**17 AIRPORT OF ENTRY, LANDING RIGHTS, AND CUSTOMS USER FEE AIRPORTS**

U.S. CUSTOMS USER FEE AIRPORT—Private Aircraft operators are frequently required to pay the costs associated with customs processing.

AOE—Airport of Entry. A customs Airport of Entry where permission from U.S. Customs is not required to land. However, at least one hour advance notice of arrival is required.

LRA—Landing Rights Airport. Application for permission to land must be submitted in advance to U.S. Customs. At least one hour advance notice of arrival is required.

NOTE: Advance notice of arrival at both an AOE and LRA airport may be included in the flight plan when filed in Canada or Mexico. Where Flight Notification Service (ADCUS) is available the airport remark will indicate this service. This notice will also be treated as an application for permission to land in the case of an LRA. Although advance notice of arrival may be relayed to Customs through Mexico, Canada, and U.S. Communications facilities by flight plan, the aircraft operator is solely responsible for ensuring that Customs receives the notification. (See Customs, Immigration and Naturalization, Public Health and Agriculture Department requirements in the International Flight Information Manual for further details.)

US Customs Air and Sea Ports, Inspectors and Agents

Northeast Sector (New England and Atlantic States—ME to MD) 407-975-1740

Southeast Sector (Atlantic States—DC, WV, VA to FL) 407-975-1780

Central Sector (Interior of the US, including Gulf states—MS, AL, LA) 407-975-1760

Southwest East Sector (OK and eastern TX) 407-975-1840

Southwest West Sector (Western TX, NM and AZ) 407-975-1820

Pacific Sector (WA, OR, CA, HI and AK) 407-975-1800

**18 CERTIFICATED AIRPORT (14 CFR PART 139)**

Airports serving Department of Transportation certified carriers and certified under 14 CFR part 139 are indicated by the Class and the ARFF Index; e.g. Class I, ARFF Index A, which relates to the availability of crash, fire, rescue equipment. Class I airports can have an ARFF Index A through E, depending on the aircraft length and scheduled departures. Class II, III, and IV will always carry an Index A.

14 CFR PART 139 CERTIFICATED AIRPORTS  
AIRPORT CLASSIFICATIONS

Type of Air Carrier Operation	Class I	Class II	Class III	Class IV
Scheduled Air Carrier Aircraft with 31 or more passenger seats	X			
Unscheduled Air Carrier Aircraft with 31 or more passengers seats	X	X		X
Scheduled Air Carrier Aircraft with 10 to 30 passenger seats	X	X	X	

**14 CFR—PART 139 CERTIFICATED AIRPORTS**

## INDICES AND AIRCRAFT RESCUE AND FIRE FIGHTING EQUIPMENT REQUIREMENTS

Airport Index	Required No. Vehicles	Aircraft Length	Scheduled Departures	Agent + Water for Foam
A	1	<90'	≥1	500#DC or HALON 1211 or 450#DC + 100 gal H <sub>2</sub> O
B	1 or 2	≥90', <126' ----- ≥126', <159'	≥5 ----- <5	Index A + 1500 gal H <sub>2</sub> O
C	2 or 3	≥126', <159' ----- ≥159', <200'	≥5 ----- <5	Index A + 3000 gal H <sub>2</sub> O
D	3	≥159', <200' ----- >200'	 ----- <5	Index A + 4000 gal H <sub>2</sub> O
E	3	≥200'	≥5	Index A + 6000 gal H <sub>2</sub> O

> Greater Than; < Less Than; ≥ Equal or Greater Than; ≤ Equal or Less Than; H<sub>2</sub>O—Water; DC—Dry Chemical.

NOTE: The listing of ARFF index does not necessarily assure coverage for non-air carrier operations or at other than prescribed times for air carrier. ARFF Index Ltd.—indicates ARFF coverage may or may not be available, for information contact airport manager prior to flight.

**19 NOTAM SERVICE**

All public use landing areas are provided NOTAM "D" (distant dissemination) and NOTAM "L" (local dissemination) service. Airport NOTAM file identifier is shown for individual airports, e.g. "NOTAM FILE IAD". See AIM, Basic Flight Information and



ATC Procedures for detailed description of NOTAM's. Current NOTAMS are available from Flight Service Stations at 1-800-WX-BRIEF. Real time Military NOTAMS are available using the DoD Internet NOTAM Distribution System (DINS) [www.notams.jcs.mil](http://www.notams.jcs.mil).

## 20 FAA INSPECTION

All airports not inspected by FAA will be identified by the note: Not insp. This indicates that the airport information has been provided by the owner or operator of the field.

## 21 RUNWAY DATA

Runway information is shown on two lines. That information common to the entire runway is shown on the first line while information concerning the runway ends is shown on the second or following line. Runway direction, surface, length, width, weight bearing capacity, lighting, and slope, when available are shown for each runway. Multiple runways are shown with the longest runway first. Direction, length, width, and lighting are shown for sea-lanes. The full dimensions of helipads are shown, e.g., 50X150. Runway data that requires clarification will be placed in the remarks section.

### RUNWAY DESIGNATION

Runways are normally numbered in relation to their magnetic orientation rounded off to the nearest 10 degrees. Parallel runways can be designated L (left)/R (right)/C (center). Runways may be designated as STOL, Ultralight, or assault strips. Assault strips are shown by magnetic bearing.

### RUNWAY DIMENSIONS

Runway length and width are shown in feet. Length shown is runway end to end including displaced thresholds, but excluding those areas designed as overruns.

### RUNWAY SURFACE AND LENGTH

Runway lengths prefixed by the letter "H" indicate that the runways are hard surfaced (concrete, asphalt, or part asphalt-concrete). If the runway length is not prefixed, the surface is sod, clay, etc. The runway surface composition is indicated in parentheses after runway length as follows:

(AFSC)—Aggregate friction seal coat	(GRVL)—Gravel, or cinders	(PSP)—Pierced steel plank
(ASPH)—Asphalt	(MATS)—Pierced steel planking,	(RFSC)—Rubberized friction seal coat
(CONC)—Concrete	landing mats, membranes	(TURF)—Turf
(DIRT)—Dirt	(PEM)—Part concrete, part asphalt	(TRTD)—Treated
(GRVD)—Grooved	(PFC)—Porous friction courses	(WC)—Wire combed

### RUNWAY WEIGHT BEARING CAPACITY

Runway strength data shown in this publication is derived from available information and is a realistic estimate of capability at an average level of activity. It is not intended as a maximum allowable weight or as an operating limitation. Many airport pavements are capable of supporting limited operations with gross weights in excess of the published figures. Permissible operating weights, insofar as runway strengths are concerned, are a matter of agreement between the owner and user. When desiring to operate into any airport at weights in excess of those published in the publication, users should contact the airport management for permission. Runway strength figures are shown in thousand of pounds, with the last three figures being omitted. Add 000 to figure following S, D, 2S, 2T, AUW, SWL, etc., for gross weight capacity. A blank space following the letter designator is used to indicate the runway can sustain aircraft with this type landing gear, although definite runway weight bearing capacity figures are not available, e.g., S, D. Applicable codes for typical gear configurations with S=Single, D=Dual, T=Triple and Q=Quadruple:

CURRENT	NEW	NEW DESCRIPTION
S	S	Single wheel type landing gear (DC3), (C47), (F15), etc.
D	D	Dual wheel type landing gear (BE1900), (B737), (A319), etc.
T	D	Dual wheel type landing gear (P3, C9).
ST	2S	Two single wheels in tandem type landing gear (C130).
TRT	2T	Two triple wheels in tandem type landing gear (C17), etc.
DT	2D	Two dual wheels in tandem type landing gear (B707), etc.
TT	2D	Two dual wheels in tandem type landing gear (B757, KC135).
SBTT	2D/D1	Two dual wheels in tandem/dual wheel body gear type landing gear (KC10).
None	2D/2D1	Two dual wheels in tandem/two dual wheels in tandem body gear type landing gear (A340-600).
DDT	2D/2D2	Two dual wheels in tandem/two dual wheels in double tandem body gear type landing gear (B747, E4).
TTT	3D	Three dual wheels in tandem type landing gear (B777), etc.
TT	D2	Dual wheel gear two struts per side main gear type landing gear (B52).
TD	C5	Complex dual wheel and quadruple wheel combination landing gear (C5).

AUW—All up weight. Maximum weight bearing capacity for any aircraft irrespective of landing gear configuration.

SWL—Single Wheel Loading. (This includes information submitted in terms of Equivalent Single Wheel Loading (ESWL) and Single Isolated Wheel Loading).

PSI—Pounds per square inch. PSI is the actual figure expressing maximum pounds per square inch runway will support, e.g., (SWL 000/PSI 535).

Omission of weight bearing capacity indicates information unknown.

The ACN/PCN System is the ICAO standard method of reporting pavement strength for pavements with bearing strengths greater than 12,500 pounds. The Pavement Classification Number (PCN) is established by an engineering assessment of the runway. The PCN is for use in conjunction with an Aircraft Classification Number (ACN). Consult the Aircraft Flight Manual, Flight Information Handbook, or other appropriate source for ACN tables or charts. Currently, ACN data may not be available for all aircraft. If an ACN table or chart is available, the ACN can be calculated by taking into account the aircraft weight, the pavement type, and the subgrade category. For runways that have been evaluated under the ACN/PCN system, the PCN will be shown as a five-part code (e.g. PCN 80 R/B/W/T). Details of the coded format are as follows:

- (1) The PCN NUMBER—The reported PCN indicates that an aircraft with an ACN equal or less than the reported PCN can operate on the pavement subject to any limitation on the tire pressure.
- (2) The type of pavement:
  - R — Rigid
  - F — Flexible
- (3) The pavement subgrade category:
  - A — High
  - B — Medium
  - C — Low
  - D — Ultra-low
- (4) The maximum tire pressure authorized for the pavement:
  - W — High, no limit
  - X — Medium, limited to 217 psi
  - Y — Low, limited to 145 psi
  - Z — Very low, limited to 73 psi
- (5) Pavement evaluation method:
  - T — Technical evaluation
  - U — By experience of aircraft using the pavement

NOTE: Prior permission from the airport controlling authority is required when the ACN of the aircraft exceeds the published PCN or aircraft tire pressure exceeds the published limits.

#### RUNWAY LIGHTING

Lights are in operation sunset to sunrise. Lighting available by prior arrangement only or operating part of the night and/or pilot controlled lighting with specific operating hours are indicated under airport or military remarks. At USN/USMC facilities lights are available only during airport hours of operation. Since obstructions are usually lighted, obstruction lighting is not included in this code. Unlighted obstructions on or surrounding an airport will be noted in airport or military remarks. Runway lights nonstandard (NSTD) are systems for which the light fixtures are not FAA approved L-800 series: color, intensity, or spacing does not meet FAA standards. Nonstandard runway lights, VASI, or any other system not listed below will be shown in airport remarks or military service. Temporary, emergency or limited runway edge lighting such as flares, smudge pots, lanterns or portable runway lights will also be shown in airport remarks or military service. Types of lighting are shown with the runway or runway end they serve.

NSTD—Light system fails to meet FAA standards.

LIRL—Low Intensity Runway Lights.

MIRL—Medium Intensity Runway Lights.

HIRL—High Intensity Runway Lights.

RAIL—Runway Alignment Indicator Lights.

REIL—Runway End Identifier Lights.

CL—Centerline Lights.

TDZL—Touchdown Zone Lights.

ODALS—Omni Directional Approach Lighting System.

AF OVRN—Air Force Overrun 1000' Standard Approach Lighting System.

LDIN—Lead-In Lighting System.

MALS—Medium Intensity Approach Lighting System.

MALSF—Medium Intensity Approach Lighting System with Sequenced Flashing Lights.

MALSR—Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights.

SALS—Short Approach Lighting System.

SALSF—Short Approach Lighting System with Sequenced Flashing Lights.

SSALS—Simplified Short Approach Lighting System.

SSALF—Simplified Short Approach Lighting System with Sequenced Flashing Lights.

SSALR—Simplified Short Approach Lighting System with Runway Alignment Indicator Lights.

ALSAF—High Intensity Approach Lighting System with Sequenced Flashing Lights.

ALSF1—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category I, Configuration.

ALSF2—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category II, Configuration.

SF—Sequenced Flashing Lights.

OLS—Optical Landing System.

WAVE—OFF.

NOTE: Civil ALSF2 may be operated as SSALR during favorable weather conditions. When runway edge lights are positioned more than 10 feet from the edge of the usable runway surface a remark will be added in the "Remarks" portion of the airport entry. This is applicable to Air Force, Air National Guard and Air Force Reserve Bases, and those joint civil/military airfields on which they are tenants.

## VISUAL GLIDESLOPE INDICATORS

APAP—A system of panels, which may or may not be lighted, used for alignment of approach path.

PNIL APAP on left side of runway

PNIR APAP on right side of runway

PAPI—Precision Approach Path Indicator

P2L 2-identical light units placed on left side of runway

P4L 4-identical light units placed on left side of runway

P2R 2-identical light units placed on right side of runway

P4R 4-identical light units placed on right side of runway

PVASI—Pulsating/steady burning visual approach slope indicator, normally a single light unit projecting two colors.

PSIL PVASI on left side of runway

PSIR PVASI on right side of runway

SAVASI—Simplified Abbreviated Visual Approach Slope Indicator

S2L 2-box SAVASI on left side of runway

S2R 2-box SAVASI on right side of runway

TRCV—Tri-color visual approach slope indicator, normally a single light unit projecting three colors.

TRIL TRCV on left side of runway

TRIR TRCV on right side of runway

VASI—Visual Approach Slope Indicator

V2L 2-box VASI on left side of runway

V6L 6-box VASI on left side of runway

V2R 2-box VASI on right side of runway

V6R 6-box VASI on right side of runway

V4L 4-box VASI on left side of runway

V12 12-box VASI on both sides of runway

V4R 4-box VASI on right side of runway

V16 16-box VASI on both sides of runway

NOTE: Approach slope angle and threshold crossing height will be shown when available; i.e., -GA 3.5° TCH 37'.

## PILOT CONTROL OF AIRPORT LIGHTING

Key Mike	Function
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-Off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-Off)

Available systems will be indicated in the airport or military remarks, e.g., ACTIVATE HIRL Rwy 07–25, MALSR Rwy 07, and VASI Rwy 07—122.8.

Where the airport is not served by an instrument approach procedure and/or has an independent type system of different specification installed by the airport sponsor, descriptions of the type lights, method of control, and operating frequency will be explained in clear text. See AIM, "Basic Flight Information and ATC Procedures," for detailed description of pilot control of airport lighting.

## RUNWAY SLOPE

When available, runway slope data will only be provided for those airports with an approved FAA instrument approach procedure. Runway slope will be shown only when it is 0.3 percent or greater. On runways less than 8000 feet, the direction of the slope up will be indicated, e.g., 0.3% up NW. On runways 8000 feet or greater, the slope will be shown (up or down) on the runway end line, e.g., RWY 13: 0.3% up., RWY 21: Pole. Rgt tfc. 0.4% down.

## RUNWAY END DATA

Information pertaining to the runway approach end such as approach lights, touchdown zone lights, runway end identification lights, visual glideslope indicators, displaced thresholds, controlling obstruction, and right hand traffic pattern, will be shown on the specific runway end. "Rgt tfc"—Right traffic indicates right turns should be made on landing and takeoff for specified runway end.

## LAND AND HOLD SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for "Land and Hold Short Operations." These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold-short operations and markings.

## RUNWAY DECLARED DISTANCE INFORMATION

TORA—Take-off Run Available. The length of runway declared available and suitable for the ground run of an aeroplane take-off.

TODA—Take-off Distance Available. The length of the take-off run available plus the length of the clearway, if provided.

ASDA—Accelerate-Stop Distance Available. The length of the take-off run available plus the length of the stopway, if provided.

LDA—Landing Distance Available. The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

## 22 ARRESTING GEAR/SYSTEMS

Arresting gear is shown as it is located on the runway. The a-gear distance from the end of the appropriate runway (or into the overrun) is indicated in parentheses. A-Gear which has a bi-direction capability and can be utilized for emergency approach end engagement is indicated by a (B). The direction of engaging device is indicated by an arrow. Up to 15 minutes advance notice may be required for rigging A-Gear for approach and engagement. Airport listing may show availability of other than US Systems. This information is provided for emergency requirements only. Refer to current aircraft operating manuals for specific engagement weight and speed criteria based on aircraft structural restrictions and arresting system limitations.

Following is a list of current systems referenced in this publication identified by both Air Force and Navy terminology:

## BI-DIRECTIONAL CABLE (B)

<u>TYPE</u>	<u>DESCRIPTION</u>
BAK-9	Rotary friction brake.
BAK-12A	Standard BAK-12 with 950 foot run out, 1-inch cable and 40,000 pound weight setting. Rotary friction brake.
BAK-12B	Extended BAK-12 with 1200 foot run, 1¼ inch Cable and 50,000 pounds weight setting. Rotary friction brake.
E28	Rotary Hydraulic (Water Brake).
M21	Rotary Hydraulic (Water Brake) Mobile.

The following device is used in conjunction with some aircraft arresting systems:

BAK-14	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to five seconds to fully raise the cable.)
H	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to one and one-half seconds to fully raise the cable.)

## UNI-DIRECTIONAL CABLE

<u>TYPE</u>	<u>DESCRIPTION</u>
MB60	Textile brake—an emergency one-time use, modular braking system employing the tearing of specially woven textile straps to absorb the kinetic energy.
E5/E5-1/E5-3	Chain Type. At USN/USMC stations E-5 A-GEAR systems are rated, e.g., E-5 RATING-13R-1100 HW (DRY), 31L/R-1200 STD (WET). This rating is a function of the A-GEAR chain weight and length and is used to determine the maximum aircraft engaging speed. A dry rating applies to a stabilized surface (dry or wet) while a wet rating takes into account the amount (if any) of wet overrun that is not capable of withstanding the aircraft weight. These ratings are published under Military Service.

## FOREIGN CABLE

<u>TYPE</u>	<u>DESCRIPTION</u>	<u>US EQUIVALENT</u>
44B-3H	Rotary Hydraulic (Water Brake)	
CHAG	Chain	E-5

## UNI-DIRECTIONAL BARRIER

<u>TYPE</u>	<u>DESCRIPTION</u>
MA-1A	Web barrier between stanchions attached to a chain energy absorber.
BAK-15	Web barrier between stanchions attached to an energy absorber (water squeezer, rotary friction, chain). Designed for wing engagement.

NOTE: Landing short of the runway threshold on a runway with a BAK-15 in the underrun is a significant hazard. The barrier in the down position still protrudes several inches above the underrun. Aircraft contact with the barrier short of the runway threshold can cause damage to the barrier and substantial damage to the aircraft.

## OTHER

<u>TYPE</u>	<u>DESCRIPTION</u>
EMAS	Engineered Material Arresting System, located beyond the departure end of the runway, consisting of high energy absorbing materials which will crush under the weight of an aircraft.

**23 MILITARY SERVICE**

Specific military services available at the airport are listed under this general heading. Remarks applicable to any military service are shown in the individual service listing.

**24 JET AIRCRAFT STARTING UNITS (JASU)**

The numeral preceding the type of unit indicates the number of units available. The absence of the numeral indicates ten or more units available. If the number of units is unknown, the number one will be shown. Absence of JASU designation indicates non-availability.

The following is a list of current JASU systems referenced in this publication:

USAF JASU (For variations in technical data, refer to T.O. 35-1-7.)

## ELECTRICAL STARTING UNITS:

A/M32A-86	AC: 115/200v, 3 phase, 90 kva, 0.8 pf, 4 wire DC: 28v, 1500 amp, 72 kw (with TR pack)
MC-1A	AC: 115/208v, 400 cycle, 3 phase, 37.5 kva, 0.8 pf, 108 amp, 4 wire DC: 28v, 500 amp, 14 kw
MD-3	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD-3A	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD-3M	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 500 amp, 15 kw

MD-4	AC: 120/208v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 175 amp, "WYE" neutral ground, 4 wire, 120v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 303 amp, "DELTA" 3 wire, 120v, 400 cycle, 1 phase, 62.5 kva, 0.8 pf, 520 amp, 2 wire
AIR STARTING UNITS	
AM32-95	150 +/- 5 lb/min (2055 +/- 68 cfm) at 51 +/- 2 psia
AM32A-95	150 +/- 5 lb/min @ 49 +/- 2 psia (35 +/- 2 psig)
LASS	150 +/- 5 lb/min @ 49 +/- 2 psia
MA-1A	82 lb/min (1123 cfm) at 130° air inlet temp, 45 psia (min) air outlet press
MC-1	15 cfm, 3500 psia
MC-1A	15 cfm, 3500 psia
MC-2A	15 cfm, 200 psia
MC-11	8,000 cu in cap, 4000 psig, 15 cfm
COMBINED AIR AND ELECTRICAL STARTING UNITS:	
AGPU	AC: 115/200v, 400 cycle, 3 phase, 30 kw gen DC: 28v, 700 amp AIR: 60 lb/min @ 40 psig @ sea level
AM32A-60*	AIR: 120 +/- 4 lb/min (1644 +/- 55 cfm) at 49 +/- 2 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire, 120v, 1 phase, 25 kva DC: 28v, 500 amp, 15 kw
AM32A-60A	AIR: 150 +/- 5 lb/min (2055 +/- 68 cfm) at 51 +/- psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw
AM32A-60B*	AIR: 130 lb/min, 50 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw
*NOTE: During combined air and electrical loads, the pneumatic circuitry takes preference and will limit the amount of electrical power available.	
USN JASU	
ELECTRICAL STARTING UNITS:	
NC-8A/A1	DC: 500 amp constant, 750 amp intermittent, 28v; AC: 60 kva @ .8 pf, 115/200v, 3 phase, 400 Hz.
NC-10A/A1/B/C	DC: 750 amp constant, 1000 amp intermittent, 28v; AC: 90 kva, 115/200v, 3 phase, 400 Hz.
AIR STARTING UNITS:	
GTC-85/GTE-85	120 lbs/min @ 45 psi.
MSU-200NAV/A/U47A-5	204 lbs/min @ 56 psia.
WELLS AIR START SYSTEM	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. Simultaneous multiple start capability.
COMBINED AIR AND ELECTRICAL STARTING UNITS:	
NCPP-105/RCPT	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. 700 amp, 28v DC. 120/208v, 400 Hz AC, 30 kva.
JASU (ARMY)	
59B2-1B	28v, 7.5 kw, 280 amp.
OTHER JASU	
ELECTRICAL STARTING UNITS (DND):	
CE12	AC 115/200v, 140 kva, 400 Hz, 3 phase
CE13	AC 115/200v, 60 kva, 400 Hz, 3 phase
CE14	AC/DC 115/200v, 140 kva, 400 Hz, 3 phase, 28vDC, 1500 amp
CE15	DC 22-35v, 500 amp continuous 1100 amp intermittent
CE16	DC 22-35v, 500 amp continuous 1100 amp intermittent soft start
AIR STARTING UNITS (DND):	
CA2	ASA 45.5 psig, 116.4 lb/min
COMBINED AIR AND ELECTRICAL STARTING UNITS (DND)	
CEA1	AC 120/208v, 60 kva, 400 Hz, 3 phase DC 28v, 75 amp AIR 112.5 lb/min, 47 psig
ELECTRICAL STARTING UNITS (OTHER)	
C-26	28v 45kw 115-200v 15kw 380-800 Hz 1 phase 2 wire
C-26-B, C-26-C	28v 45kw: Split Bus: 115-200v 15kw 380-800 Hz 1 phase 2 wire
E3	DC 28v/10kw
AIR STARTING UNITS (OTHER):	
A4	40 psi/2 lb/sec (LPAS Mk12, Mk12L, Mk12A, Mk1, Mk2B)
MA-1	150 Air HP, 115 lb/min 50 psia
MA-2	250 Air HP, 150 lb/min 75 psia
CARTRIDGE:	
MXU-4A	USAF

**(25) FUEL—MILITARY**

Fuel available through US Military Base supply, DESC Into-Plane Contracts and/or reciprocal agreement is listed first and is followed by (Mil). At commercial airports where Into-Plane contracts are in place, the name of the refueling agent is shown. Military fuel should be used first if it is available. When military fuel cannot be obtained but Into-Plane contract fuel is available, Government aircraft must refuel with the contract fuel and applicable refueling agent to avoid any breach in contract terms and conditions. Fuel not available through the above is shown preceded by NC (no contract). When fuel is obtained from NC sources, local purchase procedures must be followed. The US Military Aircraft Identaplates DD Form 1896 (Jet Fuel), DD Form 1897 (Avgas) and AF Form 1245 (Avgas) are used at military installations only. The US Government Aviation Into-Plane Reimbursement (AIR) Card (currently issued by AVCARD) is the instrument to be used to obtain fuel under a DESC Into-Plane Contract and for NC purchases if the refueling agent at the commercial airport accepts the AVCARD. A current list of contract fuel locations is available online at [www.desc.dla.mil/Static/ProductsAndServices.asp](http://www.desc.dla.mil/Static/ProductsAndServices.asp); click on the Commercial Airports button.

See legend item 14 for fuel code and description.

**(26) SUPPORTING FLUIDS AND SYSTEMS—MILITARY****CODE**

ADI	Anti-Detonation Injection Fluid—Reciprocating Engine Aircraft.
W	Water Thrust Augmentation—Jet Aircraft.
WAI	Water-Alcohol Injection Type, Thrust Augmentation—Jet Aircraft.
SP	Single Point Refueling.
PRESAIR	Air Compressors rated 3,000 PSI or more.
De-Ice	Anti-icing/De-icing/Defrosting Fluid (MIL-A-8243).

**OXYGEN:**

LPOX	Low pressure oxygen servicing.
HPOX	High pressure oxygen servicing.
LHOX	Low and high pressure oxygen servicing.
LOX	Liquid oxygen servicing.
ORXB	Oxygen replacement bottles. (Maintained primarily at Naval stations for use in acft where oxygen can be replenished only by replacement of cylinders.)
OX	Indicates oxygen servicing when type of servicing is unknown.

NOTE: Combinations of above items is used to indicate complete oxygen servicing available;

LHOXRB	Low and high pressure oxygen servicing and replacement bottles;
LPOXRB	Low pressure oxygen replacement bottles only, etc.

NOTE: Aircraft will be serviced with oxygen procured under military specifications only. Aircraft will not be serviced with medical oxygen.

**NITROGEN:**

LPNIT	Low pressure nitrogen servicing.
HPNIT	High pressure nitrogen servicing.
LHNIT	Low and high pressure nitrogen servicing.

**(27) OIL—MILITARY**

US AVIATION OILS (MIL SPECS):

**CODE****GRADE, TYPE**

0-113	1065, Reciprocating Engine Oil (MIL-L-6082)
0-117	1100, Reciprocating Engine Oil (MIL-L-6082)
0-117+	1100, 0-117 plus cyclohexanone (MIL-L-6082)
0-123	1065, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type III)
0-128	1100, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type II)
0-132	1005, Jet Engine Oil (MIL-L-6081)
0-133	1010, Jet Engine Oil (MIL-L-6081)
0-147	None, MIL-L-6085A Lubricating Oil, Instrument, Synthetic
0-148	None, MIL-L-7808 (Synthetic Base) Turbine Engine Oil
0-149	None, Aircraft Turbine Engine Synthetic, 7.5c St
0-155	None, MIL-L-6086C, Aircraft, Medium Grade
0-156	None, MIL-L-23699 (Synthetic Base), Turboprop and Turboshaft Engines
JOAP/SOAP	Joint Oil Analysis Program. JOAP support is furnished during normal duty hours, other times on request. (JOAP and SOAP programs provide essentially the same service, JOAP is now the standard joint service supported program.)

**(28) TRANSIENT ALERT (TRAN ALERT)—MILITARY**

Tran Alert service is considered to include all services required for normal aircraft turn-around, e.g., servicing (fuel, oil, oxygen, etc.), debriefing to determine requirements for maintenance, minor maintenance, inspection and parking assistance of transient aircraft. Drag chute repack, specialized maintenance, or extensive repairs will be provided within the capabilities and priorities of the base. Delays can be anticipated after normal duty hours/holidays/weekends regardless of the hours of transient maintenance operation. Pilots should not expect aircraft to be serviced for TURN-AROUNDS during time periods when servicing or maintenance manpower is not available. In the case of airports not operated exclusively by US military, the servicing indicated by the remarks will not always be available for US military

aircraft. When transient alert services are not shown, facilities are unknown. NO PRIORITY BASIS—means that transient alert services will be provided only after all the requirements for mission/tactical assigned aircraft have been accomplished.

## 29 AIRPORT REMARKS

The Attendance Schedule is the months, days and hours the airport is actually attended. Airport attendance does not mean watchman duties or telephone accessibility, but rather an attendant or operator on duty to provide at least minimum services (e.g., repairs, fuel, transportation).

Airport Remarks have been grouped in order of applicability. Airport remarks are limited to those items of information that are determined essential for operational use, i.e., conditions of a permanent or indefinite nature and conditions that will remain in effect for more than 30 days concerning aeronautical facilities, services, maintenance available, procedures or hazards, knowledge of which is essential for safe and efficient operation of aircraft. Information concerning permanent closing of a runway or taxiway will not be shown. A note "See Special Notices" shall be applied within this remarks section when a special notice applicable to the entry is contained in the Special Notices section of this publication.

Parachute Jumping indicates parachute jumping areas associated with the airport. See Parachute Jumping Area section of this publication for additional information.

Landing Fee indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

Note: Unless otherwise stated, remarks including runway ends refer to the runway's approach end.

## 30 MILITARY REMARKS

Military Remarks published at a joint Civil/Military facility are remarks that are applicable to the Military. At Military Facilities all remarks will be published under the heading Military Remarks. Remarks contained in this section may not be applicable to civil users. The first group of remarks is applicable to the primary operator of the airport. Remarks applicable to a tenant on the airport are shown preceded by the tenant organization, i.e., (A) (AF) (N) (ANG), etc. Military airports operate 24 hours unless otherwise specified. Airport operating hours are listed first (airport operating hours will only be listed if they are different than the airport attended hours or if the attended hours are unavailable) followed by pertinent remarks in order of applicability. Remarks will include information on restrictions, hazards, traffic pattern, noise abatement, customs/agriculture/immigration, and miscellaneous information applicable to the Military.

Type of restrictions:

CLOSED: When designated closed, the airport is restricted from use by all aircraft unless stated otherwise. Any closure applying to specific type of aircraft or operation will be so stated. USN/USMC/USAF airports are considered closed during non-operating hours. Closed airports may be utilized during an emergency provided there is a safe landing area.

OFFICIAL BUSINESS ONLY: The airfield is closed to all transient military aircraft for obtaining routine services such as fueling, passenger drop off or pickup, practice approaches, parking, etc. The airfield may be used by aircrews and aircraft if official government business (including civilian) must be conducted on or near the airfield and prior permission is received from the airfield manager.

AF OFFICIAL BUSINESS ONLY OR NAVY OFFICIAL BUSINESS ONLY: Indicates that the restriction applies only to service indicated.

PRIOR PERMISSION REQUIRED (PPR): Airport is closed to transient aircraft unless approval for operation is obtained from the appropriate commander through Chief, Airfield Management or Airfield Operations Officer. Official Business or PPR does not preclude the use of US Military airports as an alternate for IFR flights. If a non-US military airport is used as a weather alternate and requires a PPR, the PPR must be requested and confirmed before the flight departs. The purpose of PPR is to control volume and flow of traffic rather than to prohibit it. Prior permission is required for all aircraft requiring transient alert service outside the published transient alert duty hours. All aircraft carrying hazardous materials must obtain prior permission as outlined in AFJI 11-204, AR 95-27, OPNAVINST 3710.7.

Note: OFFICIAL BUSINESS ONLY AND PPR restrictions are not applicable to Special Air Mission (SAM) or Special Air Resource (SPAR) aircraft providing person or persons on board are designated Code 6 or higher as explained in AFJMAN 11-213, AR 95-11, OPNAVINST 3722-8J. Official Business Only or PPR do not preclude the use of the airport as an alternate for IFR flights.

## 31 WEATHER DATA SOURCES

Weather data sources will be listed alphabetically followed by their assigned frequencies and/or telephone number and hours of operation.

ASOS—Automated Surface Observing System. Reports the same as an AWOS-3 plus precipitation identification and intensity, and freezing rain occurrence (future enhancement).

AWOS—Automated Weather Observing System

AWOS-A—reports altimeter setting (all other information is advisory only).

AWOS-1—reports altimeter setting, wind data and usually temperature, dewpoint and density altitude.

AWOS-2—reports the same as AWOS-1 plus visibility.

AWOS-3—reports the same as AWOS-1 plus visibility and cloud/ceiling data.

See AIM, Basic Flight Information and ATC Procedures for detailed description of AWOS.

HIWAS—See RADIO AIDS TO NAVIGATION

LAWRS—Limited Aviation Weather Reporting Station where observers report cloud height, weather, obstructions to vision, temperature and dewpoint (in most cases), surface wind, altimeter and pertinent remarks.

LLWAS—indicates a Low Level Wind Shear Alert System consisting of a center field and several field perimeter anemometers.

SAWRS—identifies airports that have a Supplemental Aviation Weather Reporting Station available to pilots for current weather information.

SWSL—Supplemental Weather Service Location providing current local weather information via radio and telephone.

TDWR—indicates airports that have Terminal Doppler Weather Radar.

WSP—indicates airports that have Weather System Processor.

When the automated weather source is broadcast over an associated airport NAVAID frequency (see NAVAID line), it shall be indicated by a bold ASOS, AWOS, or HIWAS followed by the frequency, identifier and phone number, if available.

## **32 COMMUNICATIONS**

Airport terminal control facilities and radio communications associated with the airport shall be shown. When the call sign is not the same as the airport name the call sign will be shown. Frequencies shall normally be shown in descending order with the primary frequency listed first. Frequencies will be listed, together with sectorization indicated by outbound radials, and hours of operation. Communications will be listed in sequence as follows:

Single Frequency Approach (SFA), Common Traffic Advisory Frequency (CTAF), Automatic Terminal Information Service (ATIS) and Aeronautical Advisory Stations (UNICOM) or (AUNICOM) along with their frequency is shown, where available, on the line following the heading "COMMUNICATIONS." When the CTAF and UNICOM frequencies are the same, the frequency will be shown as CTAF/UNICOM 122.8.

The FSS telephone nationwide is toll free 1-800-WX-BRIEF (1-800-992-7433). When the FSS is located on the field it will be indicated as "on aprt". Frequencies available at the FSS will follow in descending order. Remote Communications Outlet (RCO) providing service to the airport followed by the frequency and FSS RADIO name will be shown when available.

FSS's provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service (AAS) is provided on the CTAF by FSS's for select non-tower airports or airports where the tower is not in operation.

(See AIM, Para 4-1-9 Traffic Advisory Practices at Airports Without Operating Control Towers or AC 90-42C.)

Aviation weather briefing service is provided by FSS specialists. Flight and weather briefing services are also available by calling the telephone numbers listed.

Remote Communications Outlet (RCO)—An unmanned air/ground communications facility that is remotely controlled and provides UHF or VHF communications capability to extend the service range of an FSS.

Civil Communications Frequencies—Civil communications frequencies used in the FSS air/ground system are operated on 122.0, 122.2, 123.6; emergency 121.5; plus receive-only on 122.1.

- a. 122.0 is assigned as the Enroute Flight Advisory Service frequency at selected FSS RADIO outlets.
- b. 122.2 is assigned as a common enroute frequency.
- c. 123.6 is assigned as the airport advisory frequency at select non-tower locations. At airports with a tower, FSS may provide airport advisories on the tower frequency when tower is closed.
- d. 122.1 is the primary receive-only frequency at VOR's.
- e. Some FSS's are assigned 50 kHz frequencies in the 122-126 MHz band (eg. 122.45). Pilots using the FSS A/G system should refer to this directory or appropriate charts to determine frequencies available at the FSS or remote facility through which they wish to communicate.

Emergency frequency 121.5 and 243.0 are available at all Flight Service Stations, most Towers, Approach Control and RADAR facilities.

Frequencies published followed by the letter "T" or "R", indicate that the facility will only transmit or receive respectively on that frequency. All radio aids to navigation (NAVAID) frequencies are transmit only.

### **TERMINAL SERVICES**

SFA—Single Frequency Approach.

CTAF—A program designed to get all vehicles and aircraft at airports without an operating control tower on a common frequency.

ATIS—A continuous broadcast of recorded non-control information in selected terminal areas.

D-ATIS—Digital ATIS provides ATIS information in text form outside the standard reception range of conventional ATIS via landline & data link communications and voice message within range of existing transmitters.

AUNICOM—Automated UNICOM is a computerized, command response system that provides automated weather, radio check capability and airport advisory information selected from an automated menu by microphone clicks.

UNICOM—A non-government air/ground radio communications facility which may provide airport information.

PTD—Pilot to Dispatcher.

APP CON—Approach Control. The symbol **Ⓡ** indicates radar approach control.

TOWER—Control tower.

GCA—Ground Control Approach System.

GND CON—Ground Control.

GCO—Ground Communication Outlet—An unstaffed, remotely controlled, ground/ground communications facility. Pilots at uncontrolled airports may contact ATC and FSS via VHF to a telephone connection to obtain an instrument clearance or close a VFR or IFR flight plan. They may also get an updated weather briefing prior to takeoff. Pilots will use four "key clicks" on the



VHF radio to contact the appropriate ATC facility or six "key clicks" to contact the FSS. The GCO system is intended to be used only on the ground.

DEP CON—Departure Control. The symbol **(R)** indicates radar departure control.

CLNC DEL—Clearance Delivery.

PRE TAXI CLNC—Pre taxi clearance.

VFR ADVSY SVC—VFR Advisory Service. Service provided by Non-Radar Approach Control.

Advisory Service for VFR aircraft (upon a workload basis) ctc APP CON.

COMD POST—Command Post followed by the operator call sign in parenthesis.

PMSV—Pilot-to-Metro Service call sign, frequency and hours of operation, when full service is other than continuous.

PMSV installations at which weather observation service is available shall be indicated, following the frequency and/or hours of operation as "Wx obsn svc 1900-0000Z+" or "other times" may be used when no specific time is given. PMSV facilities manned by forecasters are considered "Full Service". PMSV facilities manned by weather observers are listed as "Limited Service".

OPS—Operations followed by the operator call sign in parenthesis.

CON

RANGE

FLT FLW—Flight Following

MEDIVAC

NOTE: Communication frequencies followed by the letter "X" indicate frequency available on request.

### **(33) AIRSPACE**

Information concerning Class B, C, and part-time D and E surface area airspace shall be published with effective times.

Class D and E surface area airspace that is continuous as established by Rulemaking Docket will not be shown.

CLASS B—Radar Sequencing and Separation Service for all aircraft in CLASS B airspace.

CLASS C—Separation between IFR and VFR aircraft and sequencing of VFR arrivals to the primary airport.

TRSA—Radar Sequencing and Separation Service for participating VFR Aircraft within a Terminal Radar Service Area.

Class C, D, and E airspace described in this publication is that airspace usually consisting of a 5 NM radius core surface area that begins at the surface and extends upward to an altitude above the airport elevation (charted in MSL for Class C and Class D). Class E surface airspace normally extends from the surface up to but not including the overlying controlled airspace.

When part-time Class C or Class D airspace defaults to Class E, the core surface area becomes Class E. This will be formatted as:

**AIRSPACE: CLASS C** svc "times" ctc **APP CON** other times CLASS E:

or

**AIRSPACE: CLASS D** svc "times" other times CLASS E.

When a part-time Class C, Class D or Class E surface area defaults to Class G, the core surface area becomes Class G up to, but not including, the overlying controlled airspace. Normally, the overlying controlled airspace is Class E airspace beginning at either 700' or 1200' AGL. This will be formatted as:

**AIRSPACE: CLASS C** svc "times" ctc **APP CON** other times CLASS G, with CLASS E 700' (or 1200') AGL & abv:

or

**AIRSPACE: CLASS D** svc "times" other times CLASS G with CLASS E 700' (or 1200') AGL & abv:

or

**AIRSPACE: CLASS E** svc "times" other times CLASS G with CLASS E 700' (or 1200') AGL & abv.

**NOTE: AIRSPACE SVC "TIMES" INCLUDE ALL ASSOCIATED ARRIVAL EXTENSIONS.** Surface area arrival extensions for instrument approach procedures become part of the primary core surface area. These extensions may be either Class D or Class E airspace and are effective concurrent with the times of the primary core surface area. For example, when a part-time Class C, Class D or Class E surface area defaults to Class G, the associated arrival extensions will default to Class G at the same time. When a part-time Class C or Class D surface area defaults to Class E, the arrival extensions will remain in effect as Class E airspace.

**NOTE: CLASS E AIRSPACE EXTENDING UPWARD FROM 700 FEET OR MORE ABOVE THE SURFACE, DESIGNATED IN CONJUNCTION WITH AN AIRPORT WITH AN APPROVED INSTRUMENT PROCEDURE.**

Class E 700' AGL (shown as magenta vignette on sectional charts) and 1200' AGL (blue vignette) areas are designated when necessary to provide controlled airspace for transitioning to/from the terminal and enroute environments. Unless otherwise specified, these 700'/1200' AGL Class E airspace areas remain in effect continuously, regardless of airport operating hours or surface area status. These transition areas should not be confused with surface areas or arrival extensions.

(See Chapter 3, AIRSPACE, in the Aeronautical Information Manual for further details)



## CONTINUED FROM PRECEDING PAGE

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB _____	Automatic Weather Broadcast.
DF _____	Direction Finding Service.
DME _____	UHF standard (TACAN compatible) distance measuring equipment.
DME(Y) _____	UHF standard (TACAN compatible) distance measuring equipment that require TACAN to be placed in the "Y" mode to receive DME.
GS _____	Glide slope.
H _____	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts (50 NM at all altitudes).
HH _____	Non-directional radio beacon (homing), power 2,000 watts or more (75 NM at all altitudes).
H-SAB _____	Non-directional radio beacons providing automatic transcribed weather service.
ILS _____	Instrument Landing System (voice, where available, on localizer channel).
IM _____	Inner marker.
ISMLS _____	Interim Standard Microwave Landing System.
LDA _____	Localizer Directional Aid.
LMM _____	Compass locator station when installed at middle marker site (15 NM at all altitudes).
LOM _____	Compass locator station when installed at outer marker site (15 NM at all altitudes).
MH _____	Non-directional radio beacon (homing) power less than 50 watts (25 NM at all altitudes).
MLS _____	Microwave Landing System.
MM _____	Middle marker.
OM _____	Outer marker.
S _____	Simultaneous range homing signal and/or voice.
SABH _____	Non-directional radio beacon not authorized for IFR or ATC. Provides automatic weather broadcasts.
SDF _____	Simplified Direction Facility.
TACAN _____	UHF navigational facility-omnidirectional course and distance information.
VOR _____	VHF navigational facility-omnidirectional course only.
VOR/DME _____	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC _____	Collocated VOR and TACAN navigational facilities.
W _____	Without voice on radio facility frequency.
Z _____	VHF station location marker at a LF radio facility.

## ILS FACILITY PERFORMANCE CLASSIFICATION CODES

Codes define the ability of an ILS to support autoland operations. The two portions of the code represent Official Category and farthest point along a Category I, II, or III approach that the Localizer meets Category III structure tolerances.

Official Category: I, II, or III; the lowest minima on published or unpublished procedures supported by the ILS.

Farthest point of satisfactory Category III Localizer performance for Category I, II, or III approaches: A – 4 NM prior to runway threshold, B – 3500 ft prior to runway threshold, C – glide angle dependent but generally 750–1000 ft prior to threshold, T – runway threshold, D – 3000 ft after runway threshold, and E – 2000 ft prior to stop end of runway.

ILS information is tabulated as indicated in the following sample:

ILS/DME 108.5 I-ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.

ILS Facility Performance  
Classification Code

## FREQUENCY PAIRING PLAN AND MLS CHANNELING

MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL
500	108.10	18X	568	109.45	31Y	636	114.15	88Y
502	108.30	20X	570	109.55	32Y	638	114.25	89Y
504	108.50	22X	572	109.65	33Y	640	114.35	90Y
506	108.70	24X	574	109.75	34Y	642	114.45	91Y
508	108.90	26X	576	109.85	35Y	644	114.55	92Y
510	109.10	28X	578	109.95	36Y	646	114.65	93Y
512	109.30	30X	580	110.05	37Y	648	114.75	94Y
514	109.50	32X	582	110.15	38Y	650	114.85	95Y
516	109.70	34X	584	110.25	39Y	652	114.95	96Y
518	109.90	36X	586	110.35	40Y	654	115.05	97Y
520	110.10	38X	588	110.45	41Y	656	115.15	98Y
522	110.30	40X	590	110.55	42Y	658	115.25	99Y
524	110.50	42X	592	110.65	43Y	660	115.35	100Y
526	110.70	44X	594	110.75	44Y	662	115.45	101Y
528	110.90	46X	596	110.85	45Y	664	115.55	102Y
530	111.10	48X	598	110.95	46Y	666	115.65	103Y
532	111.30	50X	600	111.05	47Y	668	115.75	104Y
534	111.50	52X	602	111.15	48Y	670	115.85	105Y
536	111.70	54X	604	111.25	49Y	672	115.95	106Y
538	111.90	56X	606	111.35	50Y	674	116.05	107Y
540	108.05	17Y	608	111.45	51Y	676	116.15	108Y
542	108.15	18Y	610	111.55	52Y	678	116.25	109Y
544	108.25	19Y	612	111.65	53Y	680	116.35	110Y
546	108.35	20Y	614	111.75	54Y	682	116.45	111Y
548	108.45	21Y	616	111.85	55Y	684	116.55	112Y
550	108.55	22Y	618	111.95	56Y	686	116.65	113Y
552	108.65	23Y	620	113.35	80Y	688	116.75	114Y
554	108.75	24Y	622	113.45	81Y	690	116.85	115Y
556	108.85	25Y	624	113.55	82Y	692	116.95	116Y
558	108.95	26Y	626	113.65	83Y	694	117.05	117Y
560	109.05	27Y	628	113.75	84Y	696	117.15	118Y
562	109.15	28Y	630	113.85	85Y	698	117.25	119Y
564	109.25	29Y	632	113.95	86Y			
566	109.35	30Y	634	114.05	87Y			

## FREQUENCY PAIRING PLAN AND MLS CHANNELING

The following is a list of paired VOR/ILS VHF frequencies with TACAN channels and MLS channeling.

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
2X	134.5	-	19Y	108.25	544	25X	108.80	-
2Y	134.55	-	20X	108.30	502	25Y	108.85	556
11X	135.4	-	20Y	108.35	546	26X	108.90	508
11Y	135.45	-	21X	108.40	-	26Y	108.95	558
12X	135.5	-	21Y	108.45	548	27X	109.00	-
12Y	135.55	-	22X	108.50	504	27Y	109.05	560
17X	108.00	-	22Y	108.55	550	28X	109.10	510
17Y	108.05	540	23X	108.60	-	28Y	109.15	562
18X	108.10	500	23Y	108.65	552	29X	109.20	-
18Y	108.15	542	24X	108.70	506	29Y	109.25	564
19X	108.20	-	24Y	108.75	554	30X	109.30	512

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
30Y	109.35	566	63X	133.60	-	95Y	114.85	650
31X	109.40	-	63Y	133.65	-	96X	114.90	-
31Y	109.45	568	64X	133.70	-	96Y	114.95	652
32X	109.50	514	64Y	133.75	-	97X	115.00	-
32Y	109.55	570	65X	133.80	-	97Y	115.05	654
33X	109.60	-	65Y	133.85	-	98X	115.10	-
33Y	109.65	572	66X	133.90	-	98Y	115.15	656
34X	109.70	516	66Y	133.95	-	99X	115.20	-
34Y	109.75	574	67X	134.00	-	99Y	115.25	658
35X	109.80	-	67Y	134.05	-	100X	115.30	-
35Y	109.85	576	68X	134.10	-	100Y	115.35	660
36X	109.90	518	68Y	134.15	-	101X	115.40	-
36Y	109.95	578	69X	134.20	-	101Y	115.45	662
37X	110.00	-	69Y	134.25	-	102X	115.50	-
37Y	110.05	580	70X	112.30	-	102Y	115.55	664
38X	110.10	520	70Y	112.35	-	103X	115.60	-
38Y	110.15	582	71X	112.40	-	103Y	115.65	666
39X	110.20	-	71Y	112.45	-	104X	115.70	-
39Y	110.25	584	72X	112.50	-	104Y	115.75	668
40X	110.30	522	72Y	112.55	-	105X	115.80	-
40Y	110.35	586	73X	112.60	-	105Y	115.85	670
41X	110.40	-	73Y	112.65	-	106X	115.90	-
41Y	110.45	588	74X	112.70	-	106Y	115.95	672
42X	110.50	524	74Y	112.75	-	107X	116.00	-
42Y	110.55	590	75X	112.80	-	107Y	116.05	674
43X	110.60	-	75Y	112.85	-	108X	116.10	-
43Y	110.65	592	76X	112.90	-	108Y	116.15	676
44X	110.70	526	76Y	112.95	-	109X	116.20	-
44Y	110.75	594	77X	113.00	-	109Y	116.25	678
45X	110.80	-	77Y	113.05	-	110X	116.30	-
45Y	110.85	596	78X	113.10	-	110Y	116.35	680
46X	110.90	528	78Y	113.15	-	111X	116.40	-
46Y	110.95	598	79X	113.20	-	111Y	116.45	682
47X	111.00	-	79Y	113.25	-	112X	116.50	-
47Y	111.05	600	80X	113.30	-	112Y	116.55	684
48X	111.10	530	80Y	113.35	620	113X	116.60	-
48Y	111.15	602	81X	113.40	-	113Y	116.65	686
49X	111.20	-	81Y	113.45	622	114X	116.70	-
49Y	111.25	604	82X	113.50	-	114Y	116.75	688
50X	111.30	532	82Y	113.55	624	115X	116.80	-
50Y	111.35	606	83X	113.60	-	115Y	116.85	690
51X	111.40	-	83Y	113.65	626	116X	116.90	-
51Y	111.45	608	84X	113.70	-	116Y	116.95	692
52X	111.50	534	84Y	113.75	628	117X	117.00	-
52Y	111.55	610	85X	113.80	-	117Y	117.05	694
53X	111.60	-	85Y	113.85	630	118X	117.10	-
53Y	111.65	612	86X	113.90	-	118Y	117.15	696
54X	111.70	536	86Y	113.95	632	119X	117.20	-
54Y	111.75	614	87X	114.00	-	119Y	117.25	698
55X	111.80	-	87Y	114.05	634	120X	117.30	-
55Y	111.85	616	88X	114.10	-	120Y	117.35	-
56X	111.90	538	88Y	114.15	636	121X	117.40	-
56Y	111.95	618	89X	114.20	-	121Y	117.45	-
57X	112.00	-	89Y	114.25	638	122X	117.50	-
57Y	112.05	-	90X	114.30	-	122Y	117.55	-
58X	112.10	-	90Y	114.35	640	123X	117.60	-
58Y	112.15	-	91X	114.40	-	123Y	117.65	-
59X	112.20	-	91Y	114.45	642	124X	117.70	-
59Y	112.25	-	92X	114.50	-	124Y	117.75	-
60X	133.30	-	92Y	114.55	644	125X	117.80	-
60Y	133.35	-	93X	114.60	-	125Y	117.85	-
61X	133.40	-	93Y	114.65	646	126X	117.90	-
61Y	133.45	-	94X	114.70	-	126Y	117.95	-
62X	133.50	-	94Y	114.75	648			
62Y	133.55	-	95X	114.80	-			

**(35) COMM/NAV/WEATHER REMARKS:**

These remarks consist of pertinent information affecting the current status of communications, NAVAIDs and weather.

**ABINGDON**

**VIRGINIA HIGHLANDS** (VJI) 2 W UTC-5(-4DT) N36°41.23' W82°02.00'

CINCINNATI

2087 B FUEL 100LL, JET A TPA-3077 (990) NOTAM FILE VJI

L-26I

RWY 06-24: H4471X75 (ASPH) S-12.5 MIRL 0.6% up NE

IAP

RWY 06: Brush. RWY 24: ODALS. REIL. PAPI(P2L). Tree.

**AIRPORT REMARKS:** Attended Dec-Mar 1200-0000Z†, Sat-Sun 1200-2200Z†, Apr-Nov 1200-0200Z†. For fuel after hrs call 276-628-6030/623-8686. Wildlife on and in vicinity of arpt. Ultralights on and in vicinity of arpt. MIRL Rwy 06-24 preset low ints.

ACTIVATE higher ints, PAPI Rwy 24, ODALS Rwy 24 and REIL Rwy 24-CTAF.

**WEATHER DATA SOURCES:** AWOS-3 128.125 (276) 628-2940. Ceiling unreliable indef. Visability unreliable indef.

**COMMUNICATIONS:** CTAF/UNICOM 122.8

HOLSTON MOUNTAIN, TN RCO 122.1R 114.6T (NASHVILLE RADIO)

Ⓡ TRI CITY APP/DEP CON 128.67 (1100-0500Z†)

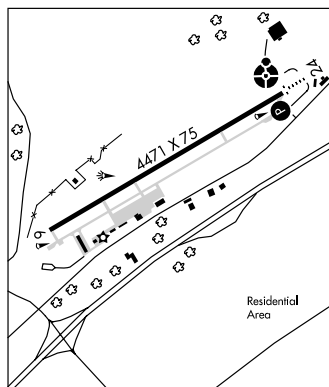
Ⓡ ATLANTA CENTER APP/DEP CON 127.85 (0500-1100Z†)

**RADIO AIDS TO NAVIGATION:** NOTAM FILE BNA.

HOLSTON MOUNTAIN (L) VORTAC 114.6 HMV Chan 93 N36°26.22' W82°07.78' 021° 15.7 NM to fld. 4321/04W.

WHINE NDB (MHW/LOM) 236 VJ N36°44.02' W81°56.94' 241° 4.9 NM to fld. NOTAM FILE VJI. Unmonitored when arpt unattended. Unusable byd 15 NM.

ILS/DME 108.3 I-VJI Chan 20 Rwy 24. LOC only. LOM WHINE NDB. LOC/DME unmonitored when arpt unattended.

**ACCOMACK CO** (See MELFA)**ALLEN C. PERKINSON/BAAF** (See BLACKSTONE)

**A P HILL AAF** (FORT A P HILL) (APH)(KAPH) A UTC-5(-4DT) N38°04.13' W77°19.10'

WASHINGTON

220 TPA-See Remarks NOTAM FILE DCA Not insp.

L-34E, 36H

RWY 05-23: 2201X100 (TURF)

RWY 23: Rgt tfr.

**MILITARY SERVICE: FUEL** J8 Avbl 1300-2130Z† with 24 hr PPR DSN 578-8224/8374, C804-633-8224/8374 Dial 8360 from fld phone if Petrol, Oils and Lubricants truck not at fld.

**AIRPORT REMARKS:** Attended Mon-Fri 1300-2130Z†, excluding holidays, other times on req. RSTD 24 hr PPR all acft. Use of airfld by fixed wing acft emerg only. **CAUTION** Range impact area R-6601 located 600 meters SE of rwy. TFC PAT TPA-900(680) MISC 40X40 conc pad SE of rwy at midfld. Flight plans open/clsd by phone Leesburg FSS, dial 9-1-800-468-6621. Phone avbl under shelter adjacent to twr. Attended/advisory service from range control Mon-Fri.

**COMMUNICATIONS:**

Ⓡ POTOMAC APP/DEP CON 134.7 307.2

RANGE CONTROL 38.5

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

NDB (MHW) 396 APH N38°05.27', W77°19.50' 173° 1.1 NM to fld. Unmonitored 2130-1300Z†.

**APPOLLO SOUCEK FLD** (See OCEANA)

**ARMEL** N38°56.08' W77°28.00' NOTAM FILE IAD.

WASHINGTON

(L) VORTAC 113.5 AML Chan 82 at Washington Dulles Intl. 297/08W.

COPTER

VOR portion unusable:

H-10H, L-29E, 34E, 36I, A

210°-250° all distances and altitudes.

320°-355° byd 15 NM blo 4000'.

DME unusable byd 35 NM blo 2500'.

RCO 122.1R 113.5T (LEESBURG RADIO)

**AZALEA PARK** N38°00.61' W78°31.09' NOTAM FILE CHO.

WASHINGTON

NDB (MHW) 336 AZS 030° 8.3 NM to Charlottesville-Albemarle.

L-26K, 36H

NDB unmonitored when twr clsd.

**BALES** N36°35.39' W79°55.04' NOTAM FILE MTV.

CINCINNATI

NDB (MHW/LOM) 396 UV 304° 5.5 NM to Blue Ridge. Unmonitored when arpt unattended.

L-26I, 36F

**BLACKSBURG****VIRGINIA TECH/MONTGOMERY EXECUTIVE**

(BCB) 3 S UTC-5(-4DT) N37°12.46' W80°24.47'

**CINCINNATI**

2132 B S4 FUEL 100LL, JET A TPA-See Remarks NOTAM FILE BCB

**L-26J**

RWY 12-30: H4539X100 (ASPH) MIRL 0.4% up SE

**IAP**

RWY 12: ODALS. PAPI(P4L)—GA 3.0° TCH 40'. Road.

RWY 30: REIL. PAPI(P2L)—GA 3.75°. Brush.

**AIRPORT REMARKS:** Attended Apr-Oct 1300-2300Z†, Nov-Mar 1300-0000Z†. PPR for fuel when arpt unattended; phone 540-231-4444. Occasional wildlife on arpt. Noise sensitive area north of arpt. VFR departures maintain rwy heading until reaching 1000 ft AGL. NSTD marking prior to thld Rwy 30. Marking should be for twy inline with rwy. MIRL Rwy 12-30 preset low ints, ACTIVATE higher ints, ODALS Rwy 12, PAPI Rwy 30 and REIL Rwy 30—CTAF. TPA 3132(1000) for non turbine powered acft, 3632(1500) turbine powered acft.

**WEATHER DATA SOURCES:** AWOS-3 133.325 (540) 231-4837.**COMMUNICATIONS:** CTAF/UNICOM 123.05

ROANOKE APP/DEP CON 126.9 ROANOKE CLNC DEL 124.85

**RADIO AIDS TO NAVIGATION:** NOTAM FILE PSK.

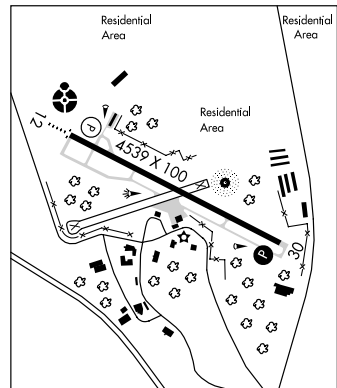
PULASKI (H) VORTAC 116.8 PSK Chan 115 N37°05.26'

W80°42.77' 070° 16.3 NM to fld. 2120/06W. HIWAS.

**TECH NDB (MHW)** 368 TEC N37°12.52' W80°24.21' at fld.

NOTAM FILE BCB.

ILS/DME 109.1 I-BCB Chan 28 Rwy 12. (LOC only). LOC/DME unmonitored when arpt unattended.

**BLACKSTONE** N37°07.65' W78°02.67' NOTAM FILE DCA**WASHINGTON**

NDB (MHW) 326 BKT 135° 5.5 NM to Allen C Perkinson/BAAF.

**L-36H****BLACKSTONE****ALLEN C. PERKINSON BLACKSTONE AAF**

(FORT PICKETT) (BKT) 2 E UTC-5(-4DT)

**WASHINGTON**

N37°04.46' W77°57.44'

**L-36H**

439 B FUEL 100LL, JET A NOTAM FILE DCA

**IAP, DIAP, AD**

RWY 04-22: H4632X150 (CONC) PCN 64 R/C/W/T MIRL

0.8% up NE

RWY 04: Tree. RWY 22: Thld dspcd 700'. Tree.

RWY 01-19: H4032X75 (ASPH-CON) PCN 1 R/D/W/T

RWY 01: Tree. RWY 19: Tree. Rgt tfc.

**MILITARY SERVICE: FUEL A+, J8 (Mil) (NC-100LL, A) (Town of Blackstone,**

Opr Mon-Fri 1300-2200Z†, C434-292-7251, other times

C434-645-4824 or C434-292-7558.)

**AIRPORT REMARKS:** Attended Mon-Fri 1700-0130Z†. Clsd federal holidays. Parachute Jumping. Ldg Rwy 01 and tkf Rwy 19 not authorized. Rwy 01-19 pavement cracked, spalling, and has foreign object damage entire length. Used by state police for vehicle defensive driving at various times requiring temporary closure of rwy. Avoid flight over ammunition supply point. Jet and military training within 20 NM radius. Extensive C130 t/c and frequent parachute drops. C-130 and C-17 PPR for ldg Rwy 04-22 call 434-292-2193. When twr clsd ACTIVATE MIRL Rwy 04-22—CTAF. Rwy 22 has 700 ft relocated thld.

**MILITARY REMARKS:** Military acft ctc RANGE OPS. RSTD 24 hr PPR DSN

438-2193 for ldg at post helipads. Military opr call C434-292-2193/2116. Rwy 04-22 PPR and rwy condition

call C434-292-2193. MISC Crash/Rescue svc DSN 438-2193/2217.

**COMMUNICATIONS:** CTAF/UNICOM 122.95

① WASHINGTON CENTER APP/DEP CON 118.75 377.1

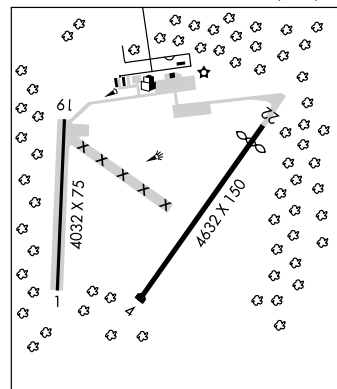
BLACKSTONE TOWER 38.3 126.2 241.0 Opr Mon-Fri 1200-2030Z† except federal holidays. Other times by NOTAM.

RANGE OPS 38.3 41.05

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

LAWRENCEVILLE (L) VORTAC 112.9 LVL Chan 76 N36°49.08' W77°54.18' 358° 15.6 NM to fld. 350/08W.

BLACKSTONE NDB (MHW) 326 BKT N37°07.65' W78°02.67' 127° 5.3 NM to fld.

**BLUE RIDGE** (See MARTINSVILLE)

**BOJAR** N37°15.75' W 79°14.60' NOTAM FILE LYH.  
 NDB (MHW/LOM) 385 LY 036° 4.4 NM to Lynchburg Rgnl-Preston Glenn Fld.  
 NDB unmonitored when tower clsd.

CINCINNATI  
 L-26J, 36G

**BRIDGEWATER AIR PARK** (VBW) 1 NW UTC-5(-4DT) N38°22.00' W78°57.62'

WASHINGTON

1165 B FUEL 100LL, JET A NOTAM FILE DCA  
 RWY 15-33: H2745X60 (ASPH) S-22 MIRL 0.3% up SE

L-26J  
 IAP

RWY 15: Tree. RWY 33: Thld dsplcd 386'. Pole.

**AIRPORT REMARKS:** Attended Mon-Fri 1300-2200Z, Sat 1400-2100Z, and Sun 1700-2100Z. ACTIVATE MIRL Rwy 15-33-CTAF.

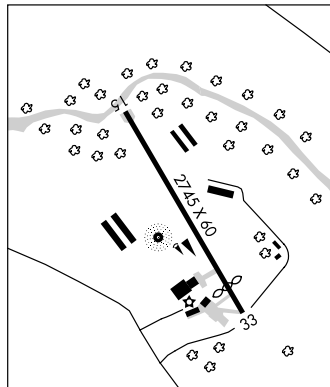
**COMMUNICATIONS:** CTAF/UNICOM 122.7

® POTOMAC APP/DEP CON 132.85

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

**MONTEBELLO (L) VOR/DME** 115.3 MOL Chan 100 N37°54.03' W79°06.41' 019° 28.8 NM to fld. 3460/05W.

**NDB (MHW) 241 VBW** N38°21.94' W78°57.67' at fld.  
 Unmonitored when arpt unattended. Unusable 225°-235° byd 21 NM.



**BROOKE** N38°20.18' W77°21.18' NOTAM FILE DCA.

WASHINGTON

(L) **VORTAC** 114.5 BRV Chan 92 237°6.2 NM to Shannon. 145/09W.

H-10H, L-29E, 34E, 36I, A

VOR portion unusable:

077°-083°

084° byd 16 NM

084° blo 9000'

085°-089° byd 16 NM

090°-140° byd 10 NM blo 3000'

DME portion unusable byd 35 NM blo 3500'

VORTAC unusable:

141°-308° byd 10 NM blo 3000'

341°-006° byd 10 NM blo 5500'

341°-006° byd 30 NM blo 8500'

341°-006° byd 36 NM

341°-006° blo 2500'

141°-308° byd 24 NM blo 6000'

RCO 122.1R 114.5T (LEESBURG RADIO)

**BROOKNEAL/CAMPBELL CO** (ØV4) 06 NW UTC-5(-4DT) N37°08.50' W79°00.98'

CINCINNATI

596 B NOTAM FILE DCA

L-26K, 36G

RWY 06-24: H3798X60 (ASPH) S-12.5 MIRL

IAP

RWY 06: Tree. RWY 24: Tree.

**AIRPORT REMARKS:** Unattended. Ultralight activity on and invov arpt.

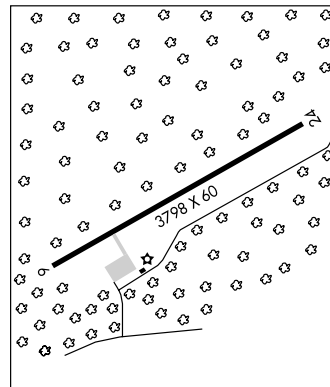
MIRL Rwy 06-24 preset low, ACTIVATE higher ints-CTAF.

**COMMUNICATIONS:** CTAF/UNICOM 122.7

® **ROANOKE APP/DEP CON** 125.47 (East of LYH VORTAC) 135.0 (West of LYH VORTAC)

**RADIO AIDS TO NAVIGATION:** NOTAM FILE LYH.

**LYNCHBURG (L) VORTAC** 109.2 LYH Chan 29 N37°15.28' W79°14.19' 128° 12.5 NM to fld. 880/05W. HIWAS.



**BUCK'S ELBOW MOUNTAIN** N38°06.25' W78°44.62'

WASHINGTON

RCO 122.65 122.2 (LEESBURG RADIO)

L-26K, 36H



**BUMPASS**

**LAKE ANNA** (7W4) 0 NW UTC-5(-4DT) N37°57.94' W77°44.75'  
 355 B NOTAM FILE DCA  
**RWY 08-26:** H2560X25 (ASPH) S-6 LIRL (NSTD)  
**RWY 08:** Trees. **RWY 26:** Trees.  
**AIRPORT REMARKS:** Unattended. No students.  
**COMMUNICATIONS:** CTAF 122.9

WASHINGTON

**CAMPBELL FLD** (See WEIRWOOD)

**CAMP PEARY LNDG STRIP** (W94) A 3 NE UTC-5(-4DT) N37°18.77' W76°38.29'  
 41 NOTAM FILE DCA Not Insp  
**RWY 05-23:** H5018X51 (ASPH)

WASHINGTON  
 H-101, 12H, L-34E, 36H  
 IAP

**MILITARY REMARKS:** Attended Mon-Fri 1300-2130Z±. Field rstd, PPR by written req to Base Commander, Attn: Air OPS. Exc when opr under prior permission auth, pilots should maintain at least 3000' abv the arpt elevation within 5 NM.

**COMMUNICATIONS:**

Ⓡ **NORFOLK APP/DEP CON** 125.7 335.625

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

**HARCUM (L) VORTAC** 108.8 HCM Chan 25 N37°26.92' W76°42.68' 164° 8.9 NM to fld. 10/07W.

**CAPE CHARLES** N37°20.85' W75°59.86' NOTAM FILE DCA.

WASHINGTON

(L) **VORTAC** 112.2 CCV Chan 59 042° 21.2 NM to Accomack Co. 10/10W.

H-101, 12H, L-35D, 36I

VOR portion unusable;

137°-322° byd 17 NM blo 2000'

137°-322° byd 22 NM blo 3000'

**RCD** 122.1R 112.2T (LEESBURG RADIO)

**CASANOVA** N38°38.47' W77°51.93' NOTAM FILE DCA.

WASHINGTON

(H) **VORTAC** 116.3 CSN Chan 110 184° 6.9 NM to Culpeper Rgnl. 439/06W.

H-10H, L-29D, 34E, 36I, A

VORTAC unusable 310°-350° byd 10 NM blo 11000'.

**RCD** 122.1R 116.3T (LEESBURG RADIO)

**CAVERNS** N38°41.97' W78°28.30' NOTAM FILE DCA.

WASHINGTON

**NDB (MHW)** 245 LUA 224° 2.4 NM to Luray Caverns. Unmonitored when arpt unattended.

L-29G

Unusable 209°-049° byd 15 NM; 050°-208° byd 10 NM.

**CHAMBERS FLD** (See NORFOLK NS)**CHARLOTTESVILLE-ALBEMARLE** (CHO) 7 N UTC-5(-4DT) N38°08.32' W78°27.17'

WASHINGTON

639 B S4 **FUEL** 100LL, JET A Class I, ARFF Index B NOTAM FILE CHO

H-10H, 12H, L-26K, 36H

**RWY 03-21:** H6001X150 (ASPH-GRVD) S-100, D-160, ST-175, DT-300 HIRL 0.3% up SW

IAP, AD

**RWY 03:** MALSR.

**RWY 21:** REIL. VASI(V4L)—GA 3.0°TCH 50'.

**AIRPORT REMARKS:** Attended 1100-0400Z±. Deer and birds on and invof arpt. PPR 8 hrs for unscheduled air carrier ops with more than 9 passenger seats between 0400-1100Z±, call arpt manager 434-981-4152. When twr clsd HIRL Rwy 03-21 and twy lgts preset low ints and REIL Rwy 21 unavbl. To increase ints HIRL Rwy 03-21 and twy lgts and ACTIVATE MALSR Rwy 03—CTAF. VASI Rwy 21 not monitored. REIL not monitored. Landing fee only for acft over 7000 lbs. Wheeled helicopters are requested to ground taxi when transiting arpt.

**WEATHER DATA SOURCES:** ASOS 118.425 (434) 973-5024.

**COMMUNICATIONS:** CTAF 124.5 ATIS 118.425 UNICOM 122.95

**CHARLOTTESVILLE RCD** 122.65 122.2 (LEESBURG RADIO)

Ⓡ **POTOMAC APP/DEP CON** 132.85

**TOWER** 124.5 (1100-0400Z±) **GND CON** 121.9

**AIRSPACE:** CLASS D svc 1100-0400Z± other times CLASS E.

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

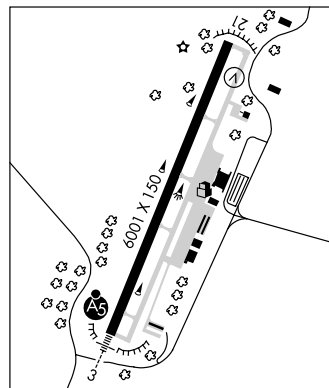
**GORDONSVILLE (H) VORTAC** 115.6 GVE Chan 103 N38°00.82'

W78°09.18' 304° 16.1 NM to fld. 382/06W. HIWAS.

**AZALEA PARK NDB (MHW)** 336 AZS N38°00.61' W78°31.09' 030° 8.3 NM to fld. NOTAM FILE CHO.

NDB unmonitored when twr clsd.

**ILS** 111.7 I-CHO Rwy 03. Class IA. LOC/GS unmonitored when twr closed.



**CHASE CITY MUNI** (CXE) 2 W UTC-5(-4DT) N36°47.30' W78°30.09'

503 B TPA 1303 (800) NOTAM FILE DCA

RWY 18-36: H3400X50 (ASPH) S-12.5 LIRL 0.5% up N

RWY 18: TRCV(TRIL). Road. RWY 36: TRCV(TRIL). Tree.

AIRPORT REMARKS: Unattended. Deer on and in/ovf arpt. Rwy 18 TRCV

OTS indef. Rwy 36 TRCV OTS indef.

COMMUNICATIONS: CTAF 122.9

Ⓡ WASHINGTON CENTER APP/DEP CON 118.75

RADIO AIDS TO NAVIGATION: NOTAM FILE DCA.

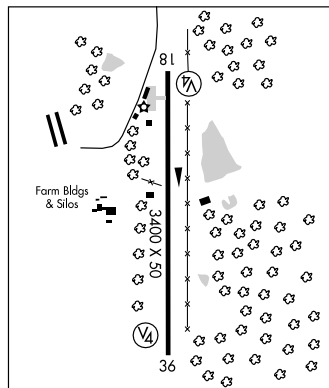
SOUTH BOSTON (L) VORTAC 110.4 SBV Chan 41 N36°40.50'

W79°00.87' 079° 25.7 NM to fld. 530/05W.

WASHINGTON

L-36G

IAP



**CHESAPEAKE RGNL** (See NORFOLK)

**CHESI** N36°35.99' W76°22.91' NOTAM FILE ORF.

NDB (MHW/LOM) 233 EY 046° 4.9 NM to Chesapeake Rgnl.

WASHINGTON

L-35D

## CHESTER

**MC LAUGHLIN** (2G6) 6 E UTC-5(-4DT) N37°19.23' W77°20.75'

7 NOTAM FILE DCA

Not insp.

WATERWAY 05-23: 2500X150 (WATER)

SEAPLANE REMARKS: unattended.

COMMUNICATIONS: CTAF 122.9

WASHINGTON

**CHESTERFIELD CO** (See RICHMOND)

## CLARKSVILLE

**LAKE COUNTRY RGNL** (W63) 2 S UTC-5(-4DT) N36°35.75' W78°33.61'

421 B TPA-1221(800) NOTAM FILE DCA

RWY 04-22: H4488X50 (ASPH) S-12.5 MIRL

RWY 04: Tree. RWY 22: Thld dsplcd 460'. Road.

AIRPORT REMARKS: Unattended.

COMMUNICATIONS: CTAF 122.9

WASHINGTON CENTER APP/DEP CON 118.75

RADIO AIDS TO NAVIGATION: NOTAM FILE DCA.

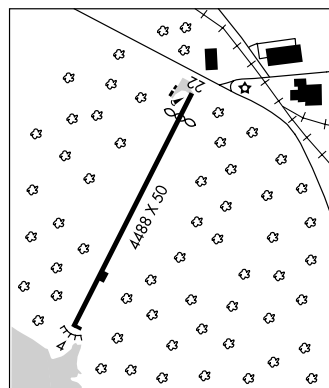
SOUTH BOSTON (L) VORTAC 110.4 SBV Chan 41 N36°40.50'

W79°00.87' 107° 22.5 NM to fld. 530/05W.

WASHINGTON

L-36G

IAP



**CREWE MUNI** (W81) 1E UTC-5(-4DT) N37°10.86' W78°05.90'

WASHINGTON

420 B S2 FUEL 100LL NOTAM FILE DCA

L-36H

RWY 15-33: H3300X60 (ASPH) S-12 MIRL

RWY 15: APAP(PNIL)—GA 5.0° TCH 17'. Thld dsplcd 87'. Ground.

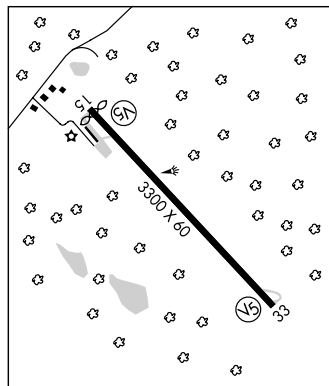
RWY 33: APAP(PNIL)—GA 3.0° TCH 8'. Tree.

**AIRPORT REMARKS:** Attended 1400-2200Z. Deer and turkey on and invof arpt. For airframe and power plant repairs call 804-645-9393. Rwy 15 APAP not lgtd. PNIL unavailable at night. Rwy 33 APAP not lgtd. PNIL unavailable at night. For MIRL Rwy 15-33 key CTAF 5 times on; 3 times off.

**COMMUNICATIONS:** CTAF/UNICOM 122.8

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

**LAWRENCEVILLE (L) VORTAC** 112.9 LVL Chan 76 N36°49.08' W77°54.18' 345° 23.7 NM to fld. 350/08W.



**CULPEPER RGNL** (CJR) 7 NE UTC-5(-4DT) N38°31.53' W77°51.58'

WASHINGTON

316 B S4 FUEL 100LL, JET A NOTAM FILE CJR

H-10H, 12H, L-29E, 34E, 36I, A

RWY 04-22: H5000X100 (ASPH) S-40 MIRL

IAP

RWY 04: REIL. PAPI(P4L)—GA 3.0° TCH 40'. Fence.

RWY 22: REIL. PAPI(P4L)—GA 3.0° TCH 40'. Bldg.

**AIRPORT REMARKS:** Attended Nov-Apr 1300-2300Z, May-Oct 1300-0100Z. Deer on and invof arpt. ACTIVATE MIRL Rwy 04-22, REIL Rwy 04, PAPI Rwy 04, REIL Rwy 22, PAPI Rwy 22 and twy lgts—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 119.325 (540) 727-0523.

**COMMUNICATIONS:** CTAF/UNICOM 123.075

**CASANOVA RCO** 122.1R 116.3T (LEESBURG RADIO)

® **POTOMAC APP/DEP CON** 124.65

**GCO** 135.075 (POTOMAC CLNC)

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

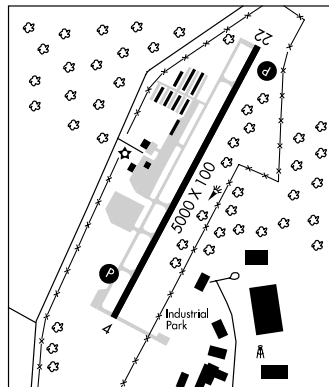
**CASANOVA (H) VORTAC** 116.3 CSN Chan 110 N38°38.47'

W77°51.93' 184° 6.9 NM to fld. 439/06W.

**NAILR NDB (MHW)** 351 MSQ N38°27.26' W77°54.32'

037° 4.8 NM to fld.

**ILS** 109.95 I-DZH Rwy 04. LOC only.



**DANVILLE RGNL** (DAN) 3 E UTC-5(-4DT) N36°34.37' W79°20.17'

CINCINNATI

571 B S2 FUEL 100LL, JET A TPA—See Remarks NOTAM FILE DAN

H-9C, 12H, L-26J, 36G

RWY 02-20: H6500X150 (ASPH-GRVD) S-90, D-130, ST-165 HIRL 0.4% up N

IAP

RWY 02: MALSR. PAPI(P4L)—GA 3.0°TCH 54'.

RWY 20: REIL. PAPI(P4L)—GA 3.0° TCH 50'. Thld displcd 900'. Tree.

RWY 13-31: H4020X100 (ASPH) S-90, D-130, ST-165

MIRL 1.1% up NW

RWY 13: REIL. VASI(V2L)—GA 3.0°. Tree.

RWY 31: REIL. VASI(V2L)—GA 3.0°. Road.

**RUNWAY DECLARED DISTANCE INFORMATION:**

RWY 02: TORA-6500 TODA-6500 ASDA-5600 LDA-5600

RWY 20: TORA-6500 TODA-6500 ASDA-6500 LDA-5600

**AIRPORT REMARKS:** Attended Mon-Fri 1100-0200Z†, Sat-Sun

1200-0000Z†. Arpt unattended Christmas Day. Rwy 02-20

cracks in pavement. Birds and deer on and invof arpt. Trees penetrating 7:1 transitional sfc of Rwy 31 both sides, first 1000'.

Ctc arpt administration prior to conducting specialized aero activities 434-799-5110. TPA-1371 (800) lgt aircraft, 2071 (1500) turbine aircraft. Rwy 02 is designated calm wind rwy.

ACTIVATE HIRL Rwy 02-20; MIRL Rwy 13-31; REIL Rws 13 and 31 and 20; MALSR Rwy 02; VASI Rws 13 and 31; PAPI Rws 02 and 20—CTAF.

**WEATHER DATA SOURCES:** ASOS 128.125 (434) 799-1701.

**COMMUNICATIONS:** CTAF/UNICOM 123.05

RCO 122.2 (LEESBURG RADIO)

® **WASHINGTON CENTER APP/DEP CON** 124.05

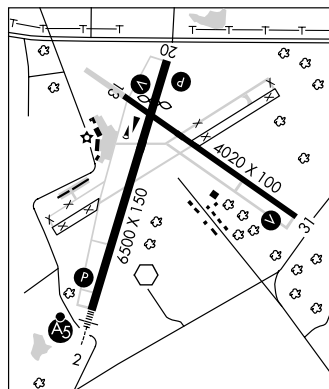
**AIRSPACE:** CLASS E svc effective 1100-0300Z† other times CLASS G.

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

**SOUTH BOSTON (L) VORTAC** 110.4 SBV Chan 41 N36°40.50' W79°00.87' 254° 16.7 NM to fld. 530/05W.

(L) **VOR** 113.1 DAN N36°34.13' W79°20.20' at fld. NOTAM FILE DAN.

**ILS** 110.7 I-DAN Rwy 02. Class IE. ILS unmonitored.



**DAVEE** N38°39.80' W77°06.58' NOTAM FILE DCA.

WASHINGTON

**NDB (MHW/LOM)** 223 DA 322° 4.6 NM to Davison AAF (Fort Belvoir). Opr Mon-Fri 1000-0130Z† except holidays.

L-29E, 34E, 36I

**DAVISON AAF** (FORT BELVOIR) (DAA)(KDA) A (ARNG) 3 NW UTC-5(-4DT) **WASHINGTON**  
 N38°42.90' W77°10.86' **COPTER**  
 73 B TPA-See Remarks NOTAM FILE DCA Not insp. H-10H, 121, L-29E, 34E, 361, A  
**RWY 14-32:** H5618X74 (ASPH) PCN 27 F/A/W/T HIRL 0.4% up NW **DIAP**  
**RWY 14:** REIL. PAPI(P4L)—GA 3.0° TCH 59'. Thld dsplcd 600'. **RWY 32:** MALS. REIL. Thld dsplcd 900'.  
**MILITARY SERVICE:** LGT When twr clsd HIRL Rwy 14-32 preset med ints. **FUEL** J8. Avbl Mon-Fri 1130-0330Z†, weekends and holidays, 1300-2200Z†, other times 2 hr PPR.  
**OIL** O-123-128-148-156.  
**MILITARY REMARKS:** See FLIP AP/1 Supplementary Arpt Information. **RSTD** Official Business Only. PPR 24 hr notice for all non DAA based acft. ctc Base Ops weekdays 1200-2100Z†, DSN 656-7683/7682, C703-806-7682/7683. 24 hr PPR NVESD ramp, DSN 656-7675/7676, C703-806-7675/7676. **CAUTION** Expect shear/crosswind shift touch down zone Rwy 32 during SW-NW wind. Bird and deer hazard. **TFC PAT** TPA-Fixed wing SW 1500(1427), rotary wing NE 1100(1027). **NS ABTMT** Twr will advise of restriction to engine run up, tkf and ldg between Mon-Sat 0300-1300Z†, Sun and holidays 2200-1700Z†. Multiple practice instrument apch or tfc pat work are only authorized Mon-Sat 1300-0300Z†, Sun and holidays 1700-0300Z†. **MISC** With control twr/opr approval, dep acft may use rwy app end overrun for tkf roll. Wx obsn augmented/back-up as reg Mon-Fri 1030-0230Z† exc holidays. Auto voice obsn continuous DSN 656-7313. Wx forecast Mon-Fri 1100-0230Z†, exc holidays, other times remote briefing svc avbl 15th OWS, Scott AFB DSN 576-9755, C618-256-9755, fax extension 4855 or https://ows.scott.af.mil. See VFR-S for Pentagon Heliport. **ARNG** Opr 24/7.  
**COMMUNICATIONS:** CTAF 126.3 ATIS 128.175 230.0 (Mon-Fri 1100-0230Z†, excluding holidays) **PTD** 139.4 34.1 (VIP arr ctc Base OPS 15 min prior to ldg.)  
**POTOMAC APP CON** 119.85 322.3  
**TOWER** 126.3 229.4 241.0 (Mon-Fri 1100-0230Z†, excluding holidays) **GND CON** 121.9 245.2  
**CLNC DEL** 245.2  
**POTOMAC DEP CON** 118.1 343.7  
**METRO PMSV** 139.4 **BASE OPS** 139.4 34.1 **ARNG OPS** 52.75  
**AIRSPACE:** CLASS D svc Mon-Fri 1100-0230Z†, excluding holidays other times CLASS G.  
**RADIO AIDS TO NAVIGATION:** NOTAM FILE IAD.  
**ARMEL (L) VORTAC** 113.5 AML Chan 82 N38°56.08' W77°28.00' 142° 18.8 NM to fld. 297/8W.  
**DAVEE NDB (MHW/LOM)** 223 DA N38°39.80' W77°06.58' 322° 4.6 NM to fld. NOTAM FILE DCA. Opr Mon-Fri 1000-0130Z† except holidays.  
**ILS** 108.9 I-DAA Rwy 32. LOM DAVEE NDB.  
**ASR/PAR** (Weekdays 1200-0000Z† excluding holidays, 2 hr PPR other times.)  
**COMM/NAV/WEATHER REMARKS:** Radar see Terminal FLIP for Radar Minima.  
 . . . . .  
**HELIPAD** 14-32: H450X50 (CONC)

## DINWIDDIE CO (See PETERSBURG)

## DUBLIN

**NEW RIVER VALLEY** (PSK) 2 N UTC-5(-4DT) N37°08.24' W80°40.71'

2105 B S2 **FUEL** 100LL, JET A NOTAM FILE PSK  
**RWY 06-24:** H6201X150 (ASPH) D-60 HIRL 0.5% up SW  
**RWY 06:** MALS. Ground.  
**RWY 24:** REIL. PAPI(P4L)—GA 3.0° TCH 44'. Brush.

**AIRPORT REMARKS:** Attended Mon-Fri 1300-0000Z†, Sat-Sun 1400-2300Z†. Military contract fuel unavbl. Deer on and infov arpt. Customs service on airport. **ACTIVATE** HIRL Rwy 06-24, MALS. Rwy 06, REIL Rwy 24 and PAPI Rwy 24—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 127.375 (540) 674-2731. **HIWAS** 116.8 PSK.

**COMMUNICATIONS:** CTAF/UNICOM 122.7

**PULASKI RCO** 122.3 122.1R 116.8T (LEESBURG RADIO)

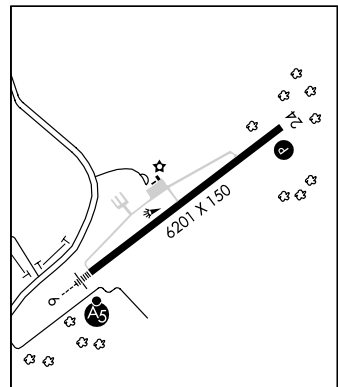
**ROANOKE APP/DEP CON** 126.0 **ROANOKE CLNC DEL** 121.7

**RADIO AIDS TO NAVIGATION:** NOTAM FILE PSK.

**PULASKI (H) VORTAC** 116.8 PSK Chan 115 N37°05.26' W80°42.77' 031° 2.9 NM to fld. 2120/06W. **HIWAS**.

**ILS** 110.9 I-PSK Rwy 06. Class IA. ILS unmonitored during hours arpt unattended.

**CINCINNATI**  
 H-10H, 12H, 6G, L-26J  
**IAP**



## EAGLE'S NEST (See WAYNESBORO)

**EMPORIA—GREENSVILLE RGNL** (EMV) 3 E UTC-5(-4DT) N36°41.21' W77°28.97'

WASHINGTON

127 B FUEL 100LL, JET A TPA—See Remarks NOTAM FILE EMV

H-9C, 10H, 12H, L-36G

RWY 15-33: H5010X100 (ASPH) S-30, D-50, DT-85 MIRL 0.3% up N

IAP

RWY 15: REIL. PAPI(P2L)—GA 3.0° TCH 30'. Road.

RWY 33: REIL. PAPI(P2L)—GA 3.0° TCH 30'. Road.

**AIRPORT REMARKS:** Attended 1400-2200Z†. Deer on and in/ovf arpt.

TPA—1127(1000) light acft, 1627(1500) heavy acft. ACTIVATE

MIRL Rwy 15-33, PAPI Rwy 15 and 33, and REIL Rwy 15 and

33—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 124.175 (804) 434-0656.**COMMUNICATIONS:** CTAF/UNICOM 123.0

WASHINGTON CENTER APP/DEP CON 132.025

**RADIO AIDS TO NAVIGATION:** NOTAM FILE FKN.

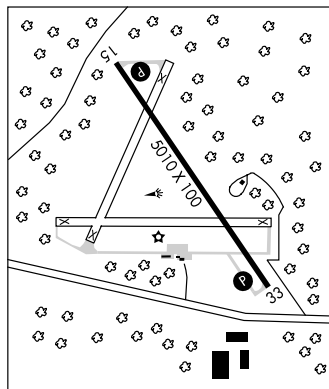
FRANKLIN (L) VORTAC 110.6 FKN Chan 43 N36°42.85'

W77°00.74' 275° 22.8 NM to fld. 90/09W.

NDB (MHW) 261 ELQ N36°37.08' W77°25.53' 336° 5.0 NM

to fld. NOTAM FILE DCA.

ILS 108.75 I-EMV Rwy 33. Localizer only.

**FALLS CHURCH** N38°54.20' W77°10.50'

WASHINGTON

RCO 122.6 122.2 (LEESBURG RADIO)

COPTER

L-29E, 34F

**FALWELL** (See LYNCHBURG)**FARMVILLE RGNL** (FVX) 4 NW UTC-5(-4DT) N37°21.45' W78°26.27'

WASHINGTON

416 B S2 FUEL 100LL, JET A NOTAM FILE FVX

L-36H

RWY 03-21: H4400X75 (ASPH) S-12.5 MIRL

IAP

RWY 03: PAPI(P2L)—GA 3.0° TCH 52'. Tree.

RWY 21: REIL. PAPI(P2L)—GA 3.0° TCH 52'. Trees.

**AIRPORT REMARKS:** Attended 1330-2200Z†. Deer on and in vicinity of

arpt. Possible unmanned aerial vehicle operating 5 NM radius

Farmville Arpt 3000' AGL and blo. Rwy 03-21 MIRL preset low

ints; to increase ints ACTIVATE—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 132.725 (434) 392-9718.**COMMUNICATIONS:** CTAF/UNICOM 122.8

® WASHINGTON CENTER APP/DEP CON 135.4

GCO 135.075 (WASHINGTON CENTER and FLIGHT SERVICES)

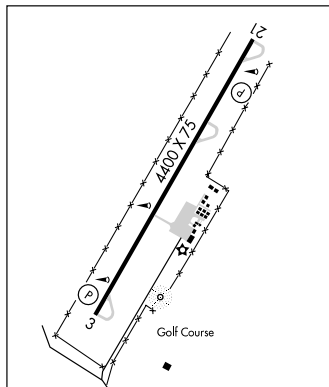
**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

FLAT ROCK (H) VORTAC 113.3 FAK Chan 80 N37°31.71'

W77°49.69' 257° 30.9 NM to fld. 460/06W.

NDB (MHW) 367 FVX N37°21.18' W78°26.28' at fld. NOTAM

FILE FVX. Unmonitored when arpt unattended.

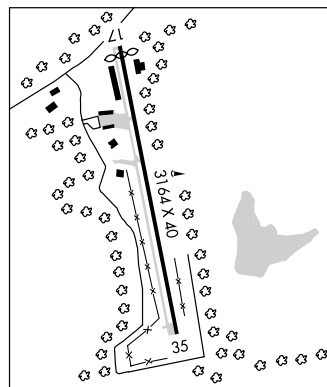


**FELKER AAF** (FORT EUSTIS) (FAF)(KFAF) A O N UTC-5(-4DT) N37°07.95' W76°36.53' **WASHINGTON**  
 11 B TPA-See Remarks NOTAM FILE DCA Not insp. **L-34E, 35D, 36H**  
**RWY 14-32:** H3020X75 (ASPH) PCN 13 F/B/Y/T HIRL **DIAP**  
**RWY 14:** ODALS. PVASI(P SIL). Rgt tfc. **RWY 32:** PVASI(P SIL).  
**MILITARY SERVICE:** LGT ACTIVATE HIRL RWY 14-32, PSIL RWY 14 and RWY 32-CTAF. ODALS RWY 14 controlled by twr.  
**JASU 2(AGPU) FUEL J8. TRAN ALERT** Svc avbl Mon-Fri 1100-2100Z except Federal holidays.  
**MILITARY REMARKS:** Base OPS Mon-Fri 1200-2200Z except holidays, DSN 826-3588/2584,  
 C757-878-3398/3588. **RSTD** Aft entering from south-southeast maximum altitude 500' due to instrument apch  
 into Newport News/Williamsburg Arpt. No hazardous Cargo Area avbl. **CAUTION** Deer and bird hazard. No overflight  
 main post. Eagle Management Area 1 NM south AER 32 at east shore James River and Morrison Creek. Avoid  
 over flight blo 1000' and 750' horizontally. No fly area 1.6 NM SE RWY 32 to include entire peninsula. **TFC PAT**  
 TPA-Fixed wing 999(988), rgt tfc RWY 14. Rotary wing 499(488). **MISC** Wx forecast on duty Mon-Fri  
 1030-0400Z except holidays. C757-878-5300, DSN 826-5300, (fax) DSN 826-2817. Remote briefing avbl  
 from 15 OWS Scott AFB, IL, DSN 576-9755/9702, C618-256-9755/9702, (fax) DSN 576-4855  
<http://ows.scott.af.mil>. Wx obsn avbl 24 hrs at <http://160.138.118.174/pv/localtop.htm> or C757-878-5314.  
 Supplemented Wx obsn avbl as rqr 1100-0400Z Mon-Fri exp exc federal holidays. Prevailing visibility may not  
 be representative of entire airfield due to tree/bldg obstruction ½ SM NW-NE, ¼ to ¾ SM all other quads on  
 auto obsn. Wind speeds may not be representative of entire airfield due to bldg obstruction to NE. RVR reporting  
 capabilities not avbl. ATC will assist in cooperative wx watch (CWW) by notifying forecaster of unreported wx  
 conditions. When twr and/or surface visibility is blo 4 SM, the lesser value is reported as prevailing during  
 supplemented wx obsn. FAA Leesburgh FSS C800-992-7433. Heli-deck marking located north of and adjacent  
 to the approach of RWY 14.  
**COMMUNICATIONS:** CTAF 126.3  
**(R) NORFOLD APP/DEP CON** 125.7 335.625  
**TOWER** 126.3 269.25 (Mon-Fri 1200-0400Z except Federal holidays) **GND CON** 121.35 229.4  
**PMSV METRO** 134.1 (Monitored Mon-Fri 1000-2200Z except holidays. Maximum range 30 NM.)  
**BASE OPS** 134.1  
**AIRSPACE:** CLASS D svc Mon-Fri 1200-0400Z, except Federal holidays, other times CLASS G.  
**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.  
**NDB (MHW)** 226 FAF N37°08.33' W76°37.11' at fld. Unmonitored when twr clsd. Unusable byd 20 NM.

**FLAT ROCK** N37°31.71' W77°49.69' NOTAM FILE DCA. **WASHINGTON**  
**(H) VORTAC** 113.3 FAK Chan 80 122° 16 NM to Chesterfield Co. 460/06W. **H-10H, L-36H**  
 VOR portion unusable:  
 111°-169° byd 30 NM  
 111°-169° blo 2600'  
 274°-337°  
**RCO** 122.1R 113.3T (LEESBURG RADIO)

## FOREST

**NEW LONDON** (W90) 6 SW UTC-5(-4DT) N37°16.31' W79°20.15' **CINCINNATI**  
 849 S2 **FUEL** MOGAS, 100LL NOTAM FILE DCA **L-26J**  
**RWY 17-35:** H3164X40 (ASPH)  
**RWY 17:** Thld dsplcd 115'. Ground.  
**RWY 35:** Trees.  
**AIRPORT REMARKS:** Attended 1430-2300Z. Parachute Jumping.  
 Ultralgt acft on and invof arpt. Rwy used as drag strip on Sundays  
 summer months. NOTAMED when arpt CLOSED.  
**COMMUNICATIONS:** CTAF/UNICOM 122.8  
**(R) ROANOKE APP/DEP CON** 125.47 (East of LYH VORTAC) 135.0 (West of  
 LYH VORTAC)  
**RADIO AIDS TO NAVIGATION:** NOTAM FILE LYH.  
**LYNCHBURG (L) VORTAC** 109.2 LYH Chan 29 N37°15.28'  
 W79°14.19' 287° 4.9 NM to fld. 880/05W. **HIWAS.**



**FORT A P HILL** (See A P HILL)

**FORT BELVOIR** (See DAVISON AAF)

**FORT LEE HELIPAD NR 3** (VA39) A O S UTC-5(-4DT) N37°15.01' W77°19.98'

WASHINGTON

100 NOTAM FILE DCA

Not insp.

L-36H

HELIPAD 36: H40X40 (CON)

DIAP

**MILITARY SERVICE:** LGT Key 126.2 3 times for boundary lgt, auto turn-off after 15 min.**MILITARY REMARKS:** RSTD 24 HR PPR DSN 687-6421. **CAUTION** Parachute jumping 2 NM NW. Small arms range 1 NM NW. Avoid overflight of asph compound 1 NM WNW. **MISC** Avoid overflight of national park and base housing areas adjacent to Fort Lee Reservation. Make advisory of ldg and tkr on 126.2.**COMMUNICATIONS:**

® POTOMAC APP/DEP CON 126.4 282.375 MEDIVAC 32.5 (KENNER)

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

HOPEWELL (L) VORTAC 112.0 HPW Chan 57 N37°19.73' W77°06.96' 252° 11.4 NM to fld. 70/6W. HIWAS.

**FORT EUSTIS** (See FELKER AAF)**FRANKLIN** N36°42.85' W77°00.74' NOTAM FILE FKN.

WASHINGTON

(L) VORTAC 110.6 FKN Chan 43 109° 5.3 NM to Franklin Muni-John Beverly Rose.

H-9C, H-10H, L-35C, 36H

90/09W.

VOR portion unusable:

090°-119° byd 18 NM blo 2000'

119°-128° byd 10 NM

129°-134° byd 33 NM

135°-148°

DME unusable:

90°-139°

RCO 122.1R 110.6T (LEESBURG RADIO)

**FRANKLIN MUNI-JOHN BEVERLY ROSE** (FKN) 2 NE UTC-5(-4DT)

WASHINGTON

N36°41.89' W76°54.23'

L-35C, 36H

41 B S4 FUEL 100LL, JET A TPA-See Remarks NOTAM FILE FKN

IAP

RWY 09-27: H4977X100 (ASPH) MIRL

RWY 09: PAPI(P2L)-GA 3.0°. TCH 46'. Brush.

RWY 27: PAPI(P2L)-GA 2.5°. Brush.

**AIRPORT REMARKS:** Attended 1300-2200Z±. Possible tkr from the Southampton Memorial Helipad 2 NM west of arpt. Deer on and in/ov arpt. Drainage ditches next to rwy and twys. **ACTIVATE** MIRL Rwy 09-27-CTAF. TPA-841(800) light acft, 1541(1500) heavy acft.**WEATHER DATA SOURCES:** AWOS-3 124.675 (757) 562-8765. Ceiling unreliable.**COMMUNICATIONS:** CTAF/UNICOM 122.8

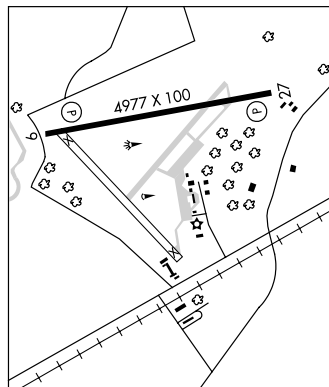
® NORFOLK APP/DEP CON 127.9

GCO 135.075 (NORFOLK CLNC) GCO unreliable indef.

**RADIO AIDS TO NAVIGATION:** NOTAM FILE FKN.

FRANKLIN (L) VORTAC 110.6 FKN Chan 43 N36°42.85'

W77°00.74' 109° 5.3 NM to fld. 90/9W.





**FREDERICKSBURG****SHANNON** (EZF) 2 S UTC-5(-4DT) N38°15.97' W77°26.96'

85 B S4 FUEL 100LL, JET A NOTAM FILE EZF

RWY 06-24: H2999X100 (ASPH) MIRL

RWY 06: PVASI(PSIL). Thld dsplcd 240'. Railroad.

RWY 24: PVASI(PSIL). Thld dsplcd 35'. Tree.

RWY 15-33: 1500X150 (TURF)

RWY 15: Tree. RWY 33: Tree.

**AIRPORT REMARKS:** Attended 1300-2300Z† Self-fueling. Tkf from Rwy 15 prohibited. Rwy 15-33 outlined with yellow cones. PVASI Rwy 06 OTS indef. ACTIVATE MIRL Rwy 06-24—CTAF. Fee for charter and corporate acft is waived with fuel purchase.

**WEATHER DATA SOURCES:** AWOS-3 128.125 (540) 372-6794. Ceiling unreliable indef.

**COMMUNICATIONS:** CTAF/UNICOM 122.8

BROOKE RCO 122.1R 114.5T (LEESBURG RADIO)

Ⓡ **QUANTICO ARRIVAL** 127.05 (Mon and Fri 1300-2200Z†, Tue, Wed and Thu 1300-0200Z† except Sat, Sun and holidays, other times etc

Ⓡ **POTOMAC APP/DEP CON** 124.65

GCO 135.075 (POTOMAC CLNC) OTS indef.

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

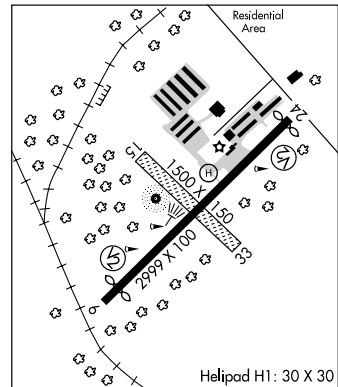
BROOKE (L) VORTAC 114.5 BRV Chan 92 N38°20.18'

W77°21.18' 236° 6.2 NM to fld. 145/09W.

NDB (MHW) 237 EZF N38°15.98' W77°27.05' at fld. NOTAM FILE EZF. Unmonitored when arpt unattended. Unusable byd 15 NM.

• • • • •  
**HELIPAD H1:** H30X30 (CONC)

**WASHINGTON**  
 L-29E, 34E, 36I, A  
 IAP

**FRONT ROYAL-WARREN CO** (FRR) 3 W UTC-5(-4DT) N38°55.05' W78°15.21'

709 B S2 FUEL 100LL TPA-1709(1000) NOTAM FILE DCA

RWY 09-27: H3007X75 (ASPH) S-12.5 MIRL 0.3% up E

RWY 09: APAP(PNIL)—GA 3.0° TCH 16'. Road.

RWY 27: APAP(PNIR)—GA 3.0° TCH 16'. Tree.

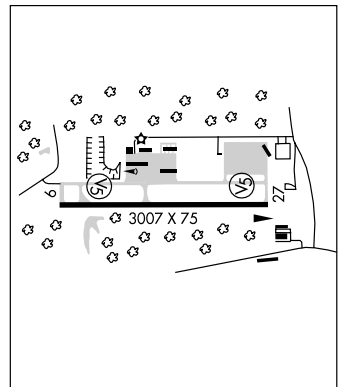
**AIRPORT REMARKS:** Attended May-Sept 1300-2330Z†, Oct-Apr 1330Z†-dusk. Deer on and invof arpt. Glider ops on and invof arpt. Rwy 09 and Rwy 27 rgt tfc for gyrocopters, ultralights and gliders. Noise abatement procedures in effect, ctc arpt manager for details at 540-635-3570. ACTIVATE MIRL Rwy 09-27—CTAF.

**COMMUNICATIONS:** CTAF/UNICOM 123.0Ⓡ **POTOMAC APP/DEP CON** 120.45**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

LINDEN (L) VORTAC 114.3 LDN Chan 90 N38°51.26'

W78°12.33' 335° 4.4 NM to fld. 2440/06W.

**WASHINGTON**  
 L-29D, A  
 IAP



**GALAX/HILLSVILLE**

**TWIN CO** (HLX) 7 NE UTC-5(-4DT) N36°45.97' W80°49.41'

CINCINNATI

2693 B S6 FUEL 100LL JETA NOTAM FILE HLX

L-26I

RWY 01-19: H4204X75 (ASPH) S-12.5 MIRL 1.2% up S

IAP

RWY 01: REIL. PAPI(P4L)—GA 3.0° TCH 21'. Trees.

RWY 19: REIL. PAPI(P2L)—GA 3.0° TCH 39'. Pole.

**AIRPORT REMARKS:** Attended irregularly. Self-svc, credit card fuel avbl 24 hrs. Deer on and invof arpt. Rwy 19 tree 76' above rwy end, 1000' from rwy end, 344' right. MIRL Rwy 01-19 preset low ints, to increase ints and ACTIVATE REIL Rwy 01 and Rwy 19—CTAF. PAPI Rwy 01 and Rwy 19 opr continuously.

**WEATHER DATA SOURCES:** AWOS-3 118.375 (276) 728-5897.

**COMMUNICATIONS:** CTAF/UNICOM 122.8

ROANOKE APP/DEP CON 126.0

GCO 135.075 (ROANOKE CLNC)

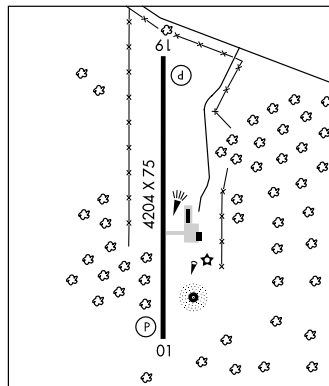
**RADIO AIDS TO NAVIGATION:** NOTAM FILE PSK.

PULASKI (H) VORTAC 116.8 PSK Chan 115 N37°05.26'

W80°42.77' 202° 20 NM to fld. 2120/06W. HIWAS.

HILLSVILLE NDB (MHW) 269 HLX N36°45.74' W80°49.32'

at fld. NOTAM FILE HLX. Unusable byd 10 NM. Unmonitored.



**GLADE SPRING** N36°49.51' W82°04.74' NOTAM FILE DCA.

CINCINNATI

(L) VOR/DME 110.2 GZG Chan 39 045° 19.7 NM to Tazewell Co. 4200/02W. HIWAS.

H-9B, 12G, L-26I

VOR portion unusable 351°-004° byd 15 NM blo 8000'.

RCO 122.1R 110.2T (LEESBURG RADIO)

**GORDONSVILLE** N38°00.82' W78°09.18' NOTAM FILE DCA.

WASHINGTON

(H) VORTAC 115.6 GVE Chan 103 002°8.6 NM to Gordonsville Muni. 382/06W.

H-10H, 12H, L-34E, 36H

HIWAS.

DME unusable:

090°-095°

318°-324°

156°-169° byd 18 NM

RCO 122.1R 115.6T (LEESBURG RADIO)

**GORDONSVILLE MUNI** (GVE) 3 NE UTC-5(-4DT) N38°09.36' W78°09.95'

WASHINGTON

454 B S2 FUEL 100LL NOTAM FILE DCA

RWY 05-23: H2300X40 (ASPH) S-12.5 MIRL 0.5% up SW

RWY 05: APAP(PNIR). Tree.

RWY 23: APAP(PNIR). Thld displcd 440'. Tree.

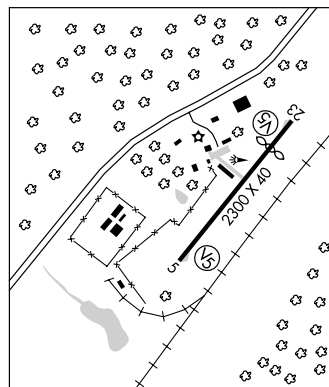
**AIRPORT REMARKS:** Unattended. Rwy 05-23 old crackseal six inches wide in places, very soft. Rotating bcn OTS indef. ACTIVATE MIRL Rwy 05-23—CTAF.

**WEATHER DATA SOURCES:** HIWAS 115.6 GVE.

**COMMUNICATIONS:** CTAF/UNICOM 123.0

RCO 122.1R 115.6T (LEESBURG RADIO)

Ⓡ POTOMAC APP/DEP CON 132.85



**GRUNDY MUNI** (GDY) 3 SW UTC-5(-4DT) N37°13.94' W82°07.50'

CINCINNATI

2304 B NOTAM FILE DCA

L-261

RWY 04-22: H2256X60 (ASPH) S-7 MIRL

IAP

RWY 04: APAP(PNIL). Tree.

RWY 22: APAP(PNIL). Tree.

**AIRPORT REMARKS:** Unattended. Wildlife invof arpt. Pay phone at arpt  
276-935-8022. ACTIVATE MIRL Rwy 04-22-CTAF; high ints  
only.

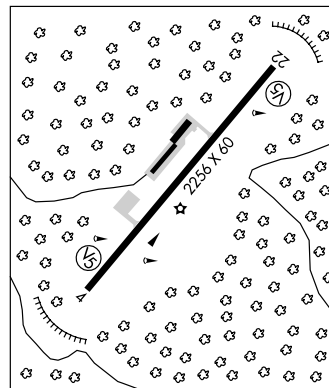
**COMMUNICATIONS:** CTAF/UNICOM 123.0

® **INDIANAPOLIS CENTER APP/DEP CON** 126.575

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

**GLADE SPRING (L) VOR/DME** 110.2 GZG Chan 39 N36°49.51'

W82°04.74' 357° 24.5 NM to fld. 4200/02W. HIWAS.



**HAMPTON ROADS EXECUTIVE** (See NORFOLK)

**HANOVER CO MUNI** (See RICHMOND/ASHLAND)

**HARCUM** N37°26.92' W76°42.68' NOTAM FILE DCA.

WASHINGTON

(L) VORTAC 108.8 HCM Chan 25 338° 5.0 NM to Middle Peninsula Rgnl. 8/07W.

H-10H, 12H, L-34E, 36H

VOR portion unusable 056°-095° below 2000', 275°-300° below 2000'.

RCO 122.1R 108.8T (LEESBURG RADIO)

**HENRY** N37°07.97' W76°29.59' NOTAM FILE DCA.

WASHINGTON

NDB (MHW) 375 PJS at Newport News/Williamsburg Intl.

L-34E, 35D, 36H

**HILLSVILLE** N36°45.74' W80°49.32' NOTAM FILE HLX.

CINCINNATI

NDB (MHW) 269 HLX at Twin Co. Unusable byd 10 NM. Unmonitored.

L-261

**HOLSTON MOUNTAIN, TN** N36°26.22' W82°07.78' NOTAM FILE TRI.

CINCINNATI

(L) VORTAC 114.6 HNV Chan 93 021° 15.7 NM to Virginia Highlands. 4321/04W.

H-9B, L-261

RCO 122.1R 114.6T (NASHVILLE RADIO)

**HOPEWELL** N37°19.73' W77°06.96' NOTAM FILE DCA.

WASHINGTON

(L) VORTAC 112.0 HPW Chan 57 003° 10.5 NM to New Kent Co. 70/06W. HIWAS.

H-10H, 12H, L-34E, 36H

RCO 122.1R 112.0T (LEESBURG RADIO)

**HOT SPRINGS****INGALLS FLD**

(HSP) 3 S UTC-5(-4DT) N37°57.09' W79°50.03'

3793 B FUEL 100LL, JET A NOTAM FILE HSP

RWY 07-25: H5600X100 (ASPH-PFC) S-65, D-160, ST-175 HIRL 0.5% up SW

RWY 07: PAPI(P4R)—GA 3.0° TCH 46'. Ground.

RWY 25: REIL. PAPI(P4L)—GA 3.0° TCH 58'.

**AIRPORT REMARKS:** Attended Nov-Mar 1400-2200Z†, Apr-Oct Mon-Fri 1300-2300Z† Sat-Sun 1300-2300Z†. Wildlife, including bear on and in/ov arpt. Be advised low pass to check/clear wildlife when arpt unattended. ACTIVATE HIRL Rwy 07-25, PAPI Rws 07 and 25, REIL Rwy 25 and twy lgtS—CTAF. Ldg fee. Ldg fee waived for fuel purchase multi engine acft only.

**WEATHER DATA SOURCES:** AWOS-3 118.8 (540) 839-5974.**COMMUNICATIONS:** CTAF/UNICOM 123.0

® WASHINGTON CENTER APP/DEP CON 134.4

**AIRSPACE:** CLASS E svc 1500-2300Z† other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

MONTEBELLO (L) VOR/DME 115.3 MOL Chan 100 N37°54.03'

W79°06.41' 280° 34.7 NM to fld. 3460/05W.

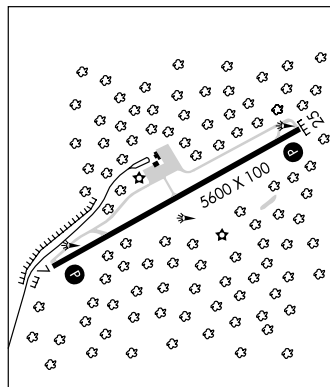
ILS 108.7 I-HSP Rwy 25. ILS unmonitored

0200-1230Z†. GS unusable blo 4030'.

CINCINNATI

H-10H, 12H, L-26J

IAP

**HUMMEL FLD** (See SALUDA)**INGALLS FLD** (See HOT SPRINGS)**INGLE** N36°50.43' W76°15.08' NOTAM FILE ORF.

NDB (LOM) 329 OR 046°4.1 NM to Norfolk Intl.

**JONES** N36°36.87' W78°03.19' NOTAM FILE AVC.

NDB (MHW) 373 AEA 008°4.4 NM to Mecklenburg-Brunswick Rgnl.

WASHINGTON

L-36G

**JONESVILLE****LEE CO**

(ØVG) 5 SW UTC-5(-4DT) N36°39.25' W83°13.07'

1411 B TPA-2411(1000) NOTAM FILE DCA

RWY 07-25: H5000X75 (ASPH) S-30 MIRL 0.9% up NE

RWY 07: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Tree.

RWY 25: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Tree.

**AIRPORT REMARKS:** Attended on call. After hours call 276-346-2075 or 276-346-3051. ACTIVATE MIRL Rwy 07-25, PAPI Rwy 07 and Rwy 25, and REIL Rwy 07 and Rwy 25—CTAF.

**COMMUNICATIONS:** CTAF 122.9

® ATLANTA CENTER APP/DEP CON 127.85

**RADIO AIDS TO NAVIGATION:** NOTAM FILE LOU.

**HAZARD (L) VOR/DME** 111.2 AZQ Chan 49 181° 44.2 NM to fld. 1247/04W. DME unusable byd 25 NM blo 4500'.

CINCINNATI

H-9B, 12G, L-25B

IAP

**KENBRIDGE****LUNENBURG CO** (W31) 3 W UTC-5(-4DT) N36°57.61' W78°11.10'**WASHINGTON**

L-366

526 B NOTAM FILE DCA

RWY 02-20: H3000X50 (ASPH-AFSC) S-12.5 LIRL

RWY 02: APAP(PNIL)—GA 5.0° TCH 26'. Tree.

RWY 20: APAP(PNIL)—GA 5.0° TCH 26'. Tree.

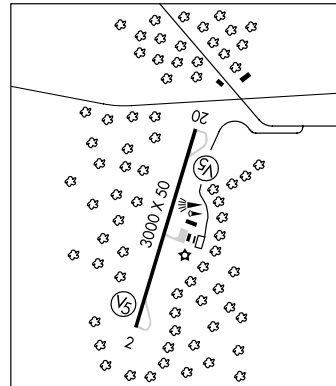
AIRPORT REMARKS: Unattended. Deer on and invof arpt.

COMMUNICATIONS: CTAF/UNICOM 122.7

RADIO AIDS TO NAVIGATION: NOTAM FILE DCA.

LAWRENCEVILLE (L) VORTAC 112.9 LVL Chan 76 N36°49.08'

W77°54.18' 310°16.0 NM to fld. 350/08W.

**LAKE ANNA** (See BUMPASS)**LAKE COUNTRY RGNL** (See CLARKSVILLE)

**LANGLEY AFB** (LFI)(KLFI) AF (NASA A) 3 N UTC-5(-4DT) N37°04.97' W76°21.63' **WASHINGTON**  
 11 B TPA-See Remarks NOTAM FILE DCA Not insp. **H-101, 12H, L-35D**  
**RWY 08-26:** H1000X150 (CONC-GRVD) PCN 77 R/C/W/T HIRL **IAP, DIAP, AD**  
**RWY 08:** ALSF1. PAPI(P4L). **RWY 26:** MALSR. REIL. PAPI(P4L).  
**ARRESTING GEAR/SYSTEM**  
**RWY 08:** ← HOOK E5 (55' OVRN) HOOK BAK-12B(B) (1100')  
 HOOK BAK 12-B(B) (1000') HOOK E5 (55' OVRN) → **RWY 26**  
**MILITARY SERVICE:** LGT Rwy 08-26 thld lgt gated, mid 70' inoperative/removed. **A-GEAR** E5 active rwy dep end.  
 BAK-12B(B) pendant cable always in place. BAK-12B extension. **JASU** 2(M32A-60) 2(MC11) 4(A/M 32A-86)  
**FUEL J8.** Expect up to 1 hr delay. **FLUID** SP LHOX LOX **OIL** O-133-148-156 SOAP **TRAN ALERT** Opr  
 weekdays 1030-0430Z, weekends and holidays 1200-0100Z. Follow Me svc avbl upon req. Expect  
 progressive taxi to park. Fleet svc truck avbl but limited to VIP C-9, C-12, C-20, C-21, UC-35, VC-135 and  
 E-4B (DV) acft only.  
**MILITARY REMARKS:** See FLIP AP/1 Supplementary Arpt Information. **RSTD** PPR ctc BASE OPS 1030-0430Z DSN  
 574-2504, C757-764-2504. Only 1 fixed wing acft authorized from 1300-1400Z. ACC RSRs applied to ACC  
 acft only. Transport/Distinguished Visitor acft ctc Base OPS 20 minutes prior lgt. **CAUTION** Intensive IFR and VFR  
 high performance fighter tfc within the Class D Airspace: Extensive uncontrolled general aviation tfc blo 3000'  
 over James River and Chesapeake Bay. Dep tfc do not exceed 1000' on climbout until dep end of rwy. Wx  
 observation site limited 080°-250° due to building. ATC will relay twr prevailing visibility, sector visibility, local  
 PIREP's or an occurrence of previously unreported wx conditions that could affect ops to wx flight. Wind shear  
 conditions may exist on Rwy 26 through short final and touchdown, that are prevalent, undetectable and often  
 unreported. Increased potential for hydroplaning due to excessive rubber build-up. Airfield grass cutting  
 conducted from Mar-Nov, expect increased bird activity invof mowers. **TFC PAT** TPA-Overhead 3000(2989) at 5  
 DME descending to 1500' by 3 DME, rgt break Rwy 26, left break Rwy 08. Rectangular 1000(989) rgt tfc Rwy  
 26, left tfc Rwy 08. **NS ABTMT** Quiet hr weekdays 0330-1100Z, weekends and holidays 0330-1300Z, waivers  
 DSN 574-5411. **MISC** Afld manager DSN 574-2508. DD Form 1801 rqr 90 min prior to estimated time of  
 departure. Rwy 08-26 grooved. ACC fighter acft expect reduced rwy separation: Day/VFR, similar acft 3000',  
 dissimilar type acft 6000'. Ngt 6000' all acft. Tran acft notify twr on initial ctc if reduced rwy separation is not  
 desired. Afld Ops does not have ability to store COMSEC. Ctc Command Post DSN 574-5411, C757-764-5411  
 for COMSEC storage. **A** Park, refuel and maintenance avbl on AF ramp. **NASA** All inbound to NASA side must  
 coordinate in advance with NASA Flight Svc Ops DSN 574-3070, C757-864-3887. Svc not avbl for non-NASA  
 acft. Twy J can only be used during daylight and VFR conditions as it does not have twy edge lgts and is restricted  
 to acft with total wingspan of 80' or less and 100,000 lbs or less gross weight.  
**COMMUNICATIONS:** SFA **ATIS** 270.1 **PTD** 141.75 376.2  
**® NORFOLK APP/DEP CON** 126.05 370.925 (010°-080°) 127.9 269.42 (180°-310°) 124.9 379.1 (311°-009°)  
**TOWER** 125.0 253.5 **GND CON** 121.7 275.8 **CLNC DEL** 118.85 257.625  
**CONSOLIDATED COMD POST** (Raymond 16) 251.25 311.0 (Have quick timing avbl 287.45.)  
**PMSV METRO** 239.8(Wx) DSN 574-5908. Alternate PMSV is McGuire AFB. Full svc avbl Mon-Fri 1200-2200Z.  
 Remote briefing svc avbl 9 OWS Shaw AFB DSN 965-0939 thru 0943, C 803-895-0939.  
**NASA OPS** 123.375 310.4  
**RADIO AIDS TO NAVIGATION:** NOTAM FILE LFI.  
**(L) TACAN** Chan 70 LFI (112.3) N37°05.13' W76°21.56' at fld. 11/10W. No NOTAM MP Tue and Thu  
 1100-1300Z and 2300-0200Z.  
 TACAN unusable:  
 130-150° byd 22 NM blo 2,000' 305°-184° byd 9 NM blo 7,000'  
 170°-180° byd 27 NM blo 2,000' 318°-305° byd 30 NM blo 3,000'  
**ILS** 109.9 I-LFI Rwy 08. GS unusable for coupled apch blo 750'. No NOTAM MP Mon, Wed, Fri  
 1100-1300Z and 2300-0200Z.  
**ILS** 109.9 I-ABM Rwy 26. No NOTAM MP Mon, Wed, and Fri 1100-1300Z and 2300-0200Z.

**LAWRENCEVILLE/BRUNSWICK MUNI** (LVL) 3 E UTC-5(-4DT) N36°46.37' W77°47.66'

WASHINGTON

329 B FUEL 100LL NOTAM FILE DCA

L-366

RWY 18-36: H3020X50 (ASPH) S-12.5 MIRL 0.6% up S.

IAP

RWY 18: Trees. RWY 36: Trees.

RWY 06-24: 1890X70 (TURF) 1.7% up NE

RWY 06: Tree. RWY 24: Tree.

**AIRPORT REMARKS:** Attended 1300-2200Z. Rwy 06-24 tmpry CLOSED due to obstructions. Deer on and invof arpt. Rwy 06-24 marked with cones. ACTIVATE MIRL Rwy 18-36—CTAF.

**COMMUNICATIONS:** CTAF/UNICOM 122.8

RCO 122.1R 112.9T (LEESBURG RADIO)

WASHINGTON APP/DEP CON 118.75

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

(L) VORTAC 112.9 LVL Chan 76 N36°49.08'

W77°54.18' 125° 5.9 NM to fld. 350/08W.

VOR portion unusable:

090° byd 20 NM

090° blo 7000'

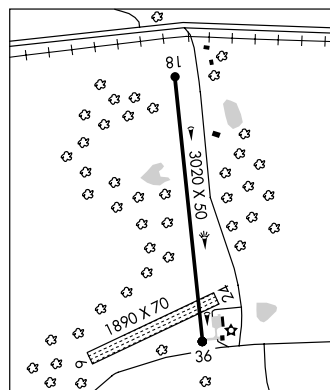
091°-105°

106° byd 27 NM

106° blo 7500'

107°-170°

171°-180° blo 6000'



201°-325° byd 17 NM blo 9000'

326°-089°

**LEE CO** (See JONESVILLE)**LEESBURG EXECUTIVE** (JYO) 3 S UTC-5(-4DT) N39°04.68' W77°33.45'

WASHINGTON

389 B S4 FUEL 100LL, JET A OX 4 TPA-1199(810) LRA NOTAM FILE JYO

COPTER

RWY 17-35: H5500X100 (ASPH) S-30, D-70 HIRL

H-10H, 12I, L-29E, 34F, A

RWY 17: ODALS(NSTD). REIL. PAPI(P4L)—GA 3.0° TCH 32'.

IAP

RWY 35: REIL. PAPI(P4R)—GA 3.0° TCH 32'. Trees.

**AIRPORT REMARKS:** Attended 1300-0100Z. For svc after hrs call 703-777-1540. For fuel and other line svcs contact arpt ops on frequency 132.0. Birds and deer on and invof arpt. Helicopter activity. Calm wind use Rwy 17. Ramp fence southwest side ramps lead-in lines on west ramp NA. PAEW on and invof arpt. Rwy 17 NSTD ODALS, 3 lgt configuration. ACTIVATE HIRL Rwy 17-35, ODALS Rwy 17, REIL Rwy 17 and Rwy 35 and PAPI Rwy 17 and Rwy 35—CTAF. Omni-directional REIL Rwy 17 and Rwy 35. US Customs avbl on req Mon-Fri 703-661-3632 extension 108/119 prior to 2200Z the preceding workday; after 2200Z or weekends 1-800-973-2867.

**WEATHER DATA SOURCES:** AWOS-3 125.225 (703) 777-3781.**COMMUNICATIONS:** CTAF/UNICOM 122.975

RCO 122.6 122.2 122.0 (LEESBURG RADIO)

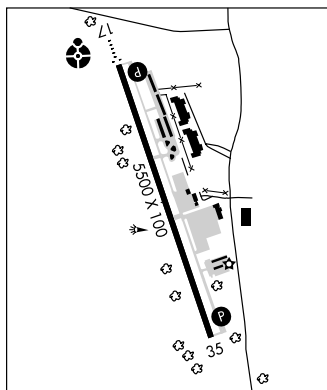
® POTOMAC APP/DEP CON 126.1 CLNC DEL 118.55 135.075

**RADIO AIDS TO NAVIGATION:** NOTAM FILE IAD.

ARML (L) VORTAC 113.5 AML Chan 82 N38°56.08'

W77°28.00' 342° 9.6 NM to fld. 297/08W.

ILS/DME 111.75 I-JYO Chan 54Y Rwy 17. LOC only. LOC/DME unmonitored when arpt unattended.

**COMM/NAV/WEATHER REMARKS:** AWOS-3 Visibility/ceiling unreliable. Wind unreliable.**LINDEN** N38°51.26' W78°12.33' NOTAM FILE DCA.

WASHINGTON

(L) VORTAC 114.3 LDN Chan 90 335° 4.4 NM to Front Royal-Warren Co. 2440/06W.

COPTER

DME portion unusable:

115°-150° byd 20 NM blo 3500'

175°-200° byd 20 NM blo 5000'

150°-155° byd 20 NM blo 4000'

200°-225° byd 20 NM blo 5500'

155°-175° byd 20 NM blo 4500'

RCO 122.1R 114.3T (LEESBURG RADIO)

**LONESOME PINE** (See WISE)

**LOUISA CO/FREEMAN FLD** (LKU) 2 SE UTC-5(-4DT) N38°00.59' W77°58.21'

WASHINGTON

493 B S4 FUEL 100LL, JET A NOTAM FILE LKU

L-34E, 36H

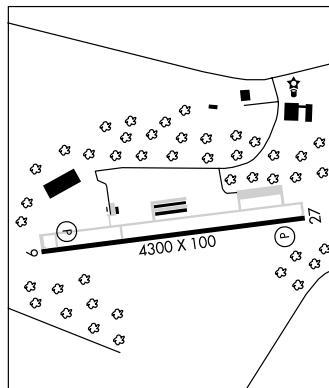
RWY 09-27: H4300X100 (ASPH) S-12.5 MIRL 0.6% up E

IAP

RWY 09: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Tree. Rgt tfc.

RWY 27: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Tree.

**AIRPORT REMARKS:** Attended Mon-Sat 1330-2200Z†. Sun and holidays 1500-2200Z†. Parachute Jumping. Deer on and invof arpt. MIRL Rwy 09-27 preset low ints, to increase ints and ACTIVATE REIL Rwys 09 and 27—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 119.475 (540) 967-1983.**COMMUNICATIONS:** CTAF/UNICOM 122.725® **POTOMAC APP/DEP CON** 132.85**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.**GORDONSVILLE (H) VORTAC** 115.6 GVE Chan 103 N38°00.82'W78°09.18' 097° 8.7 NM to fld. 382/06W. **HIWAS.****ILS** 108.55 I-LKU Rwy 27. LOC only. Unmonitored.**LUNENBURG CO** (See KENBRIDGE)**LURAY CAVERNS** (W45) 2 W UTC-5(-4DT) N38°40.02' W78°30.04'

WASHINGTON

902 B S2 FUEL 100LL NOTAM FILE DCA

L-29D

RWY 04-22: H3125X75 (ASPH) S-12 MIRL

IAP

RWY 04: APAP(PNIL)—GA 3.0°. Tree.

RWY 22: APAP(PNIL)—GA 3.0°. Antenna. Rgt tfc.

**AIRPORT REMARKS:** Attended 1300-2300Z†. Deer and birds on and invof arpt. Taxi on hard surfaces only. ACTIVATE MIRL Rwy 04-22—CTAF.

**COMMUNICATIONS:** CTAF/UNICOM 122.8® **WASHINGTON CENTER APP/DEP CON** 133.2**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.**LINDEN (L) VORTAC** 114.3 LDN Chan 90 N38°51.26' W78°12.33' 237° 17.8 NM to fld. 2440/06W.

**CAVERNS NDB (MHW)** 245 LUA N38°41.97' W78°28.30' 224° 2.4 NM to fld. Unmonitored when arpt unattended. Unusable 209°-049° byd 15 NM; 050°-208° byd 10 NM.

**LYNCHBURG****FALWELL** (W24) 3 SE UTC-5(-4DT) N37°22.68' W79°07.34'

CINCINNATI

939 S4 FUEL 100LL, JET A OX 1, 3, 4 TPA-1739(800) NOTAM FILE DCA

L-26K, 36G

RWY 10-28: H2932X50 (ASPH) MIRL 4.7% up W

IAP

RWY 10: Tree.

RWY 28: TRCV(TRIL).

**AIRPORT REMARKS:** Attended Apr-Oct 1200-0000Z†, Nov-Mar 1200-2300Z†. Land Rwy 28 (west) tkf Rwy 10 (east).

**WEATHER DATA SOURCES:** HIWAS 109.2 LYH.**COMMUNICATIONS:** CTAF/UNICOM 123.0® **ROANOKE APP/DEP CON** 125.47 (East of LYH VORTAC) 135.0 (West of LYH VORTAC)**RADIO AIDS TO NAVIGATION:** NOTAM FILE LYH.**LYNCHBURG (L) VORTAC** 109.2 LYH Chan 29 N37°15.28' W79°14.19' 042° 9.2 NM to fld. 880/05W.**HIWAS.**



**LYNCHBURG RGNL/PRESTON GLENN FLD** (LYH) 5 SW UTC-5(-4DT)

CINCINNATI

N37°19.52' W79°12.03'

H-10H, 12H, L-26J, 36G

938 B S4 FUEL 100LL, JET A Class I, ARFF Index A NOTAM FILE LYH

IAP, AD

RWY 04-22: H7100X150 (ASPH-GRVD) S-90, D-108, ST-137,  
DT-170 HIRL 0.6% up NE

RWY 04: MALSR. PAPI(P4L)—GA 3.0° TCH 55'.

RWY 22: REIL. PAPI(P4L)—GA 3.0° TCH 45'. Ground.

RWY 17-35: H3386X75 (ASPH) S-25, D-35, DT-55 MIRL

RWY 17: REIL. PAPI(P2L)—GA 4.0° TCH 20'.

RWY 35: REIL. PAPI(P2L)—GA 4.0° TCH 20'.

**RUNWAY DECLARED DISTANCE INFORMATION**

RWY 04: TORA-7100 TODA-7100 ASDA-6800 LDA-6800

RWY 22: TORA-7100 TODA-7100 ASDA-7100 LDA-7100

**AIRPORT REMARKS:** Attended 1000-0459Z†. Rwy 17-35 CLOSED to air carrier and acft over 12,500 lbs. PPR 12 hrs for unscheduled acft ops with more than 30 passenger seats. Call ARFF 434-582-1157. Twy G uncontrolled—not visible from tower. Twy G CLOSED to air carrier and acft over 12,500. Birds and other wildlife on and invof arpt. Rwy 17-35 CLOSED to air carrier or acft over 12,500 pounds without PPR. When twr clsd ACTIVATE HIRL Rwy 04-22; MALSR Rwy 04 and twy lgts—CTAF. MIRL Rwy 17-35; REIL Rwy 17 and Rwy 35 and PAPI Rwy 17 and Rwy 35 unavbl when twr clsd.

**WEATHER DATA SOURCES:** ASOS 119.8 (434) 239-0025

HIWAS 109.2 LYH. LAWRS.

**COMMUNICATIONS:** CTAF 127.65 ATIS 119.8 UNICOM 122.95

LYNCHBURG RCO 122.1R 109.2T (LEESBURG RADIO)

® **ROANOKE APP/DEP CON** 125.47 (East of LYH VORTAC) 135.0 (West of LYH VORTAC)

**TOWER** 127.65 (1130-0330Z†) **GND CON** 121.9**AIRSPACE:** CLASS D svc 1130-0330Z† other times CLASS E.**RADIO AIDS TO NAVIGATION:** NOTAM FILE LYH.

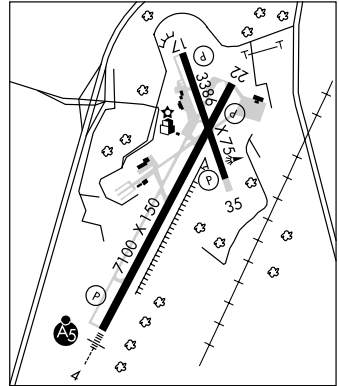
(L) VORTAC 109.2 LYH Chan 29 N37°15.28' W79°14.19' 027° 4.7 NM to fld. 880/05W. HIWAS.

VOR unusable 236°-241° within 20 NM blo 8000'.

VOR unusable 253°-257° within 20 NM blo 8000'.

**BOJAR NDB (MHW/LOM)** 385 LY N37°15.75' W79°14.60' 036° 4.4 NM to fld. NDB unmonitored when twr clsd.

**ILS** 110.1 I-LYH Rwy 04. Class IE LOM BOJAR NDB. Back course unusable. ILS unmonitored when twr clsd.



**MANASSAS RGNL/HARRY P DAVIS FLD** (HEF) 4 SW UTC-5(-4DT)

WASHINGTON

N38°43.29' W77°30.93'

COPTER

192 B S4 FUEL 100LL, JET A OX 1, 2, 4 TPA—See Remarks LRA

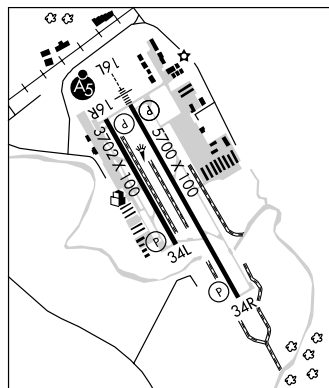
H-10H, 121, L-29E, 34E, 361, A

NOTAM FILE HEF

IAP, AD

**RWY 16L-34R:** H5700X100 (ASPH-GRVD) S-50, D-140 HIRL**RWY 16L:** MALSR. REIL. PAPI(P4L)—GA 3.0° TCH 56'. Trees.**RWY 34R:** REIL. PAPI(P4L)—GA 3.0° TCH 45'. Rgt tfc.. Tree.**RWY 16R-34L:** H3702X100 (ASPH) S-12.5 MIRL**RWY 16R:** REIL. PAPI(P2L)—GA 3.0° TCH 50'. Rgt tfc. Tree.**RWY 34L:** REIL. PAPI(P2L)—GA 3.0° TCH 40'. Tree.

**AIRPORT REMARKS:** Attended 1130-0330Z†. Birds and deer on and in/ov arpt. Acft category C III or larger use Rwy 16L-34R and East ramp. Helicopter ops over residential areas blo 1000' should be avoided; ctc arpt manager 703-361-1882. TPA—1200(1008) single engine and light twin acft, 1500(1308) med twin and turboprop acft, 1000(808) helicopter. When twr clsd ACTIVATE HIRL Rwy 16L-34R, MALSR Rwy 16L, MIRL Rwy 16R-34L and REIL Rwy 16L, Rwy 34R, Rwy 16R, Rwy 34L—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 125.175 (703) 361-6160**COMMUNICATIONS:** CTAF 133.1 ATIS 125.175 (703) 361-6160Ⓡ **POTOMAC APP/DEP CON** 124.65**TOWER** 133.1 (1130-0330Z†) **GND CON** 121.8**CLNC DEL** 120.2 (When twr clsd POTOMAC CLNC DEL 120.2)**AIRSPACE:** CLASS D svc effective 1130-0330Z† other times CLASS E.**RADIO AIDS TO NAVIGATION:** NOTAM FILE IAD.**ARML (L) VORTAC** 113.5 AML Chan 82 N38°56.08' W77°28.00' 199° 12.9 NM to fld. 297/08W.**TILLE NDB (LOM)** 346 IA N38°50.83' W77°26.27' 216° 8.4 NM to fld.**ILS** 109.1 I-HEF Rwy 16L.**MARION/WYTHEVILLE****MOUNTAIN EMPIRE** (MKJ) 9 NE UTC-5(-4DT) N36°53.69' W81°21.00'

CINCINNATI

2558 B S4 FUEL 100LL, JET A NOTAM FILE MKJ

H-9B, 12G, L-261

**RWY 08-26:** H5252X75 (ASPH) S-20 MIRL 1.1% up W

IAP

**RWY 08:** REIL. PAPI(P2L)—GA 3.0° TCH 40'. Trees.**RWY 26:** REIL. PAPI(P2L)—GA 3.75° TCH 47'. Road.

**AIRPORT REMARKS:** Attended Apr-Oct Mon-Fri 1230-0100Z†, Sat 1300-0000Z†, Sun 1800-0000Z†, Nov-Mar Mon-Fri 1230-0000Z†, Sat 1300-0000Z†, Sun 1800-0000Z†. Located 9 NM NE Marion. MIRL Rwy 08-26 preset low ints, ACTIVATE higher ints—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 123.875 (276) 686-6420.**COMMUNICATIONS:** CTAF/UNICOM 122.7Ⓡ **ATLANTA CENTER APP/DEP CON** 132.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE PSK.**PULASKI (H) VORTAC** 116.8 PSK Chan 115 N37°05.26'

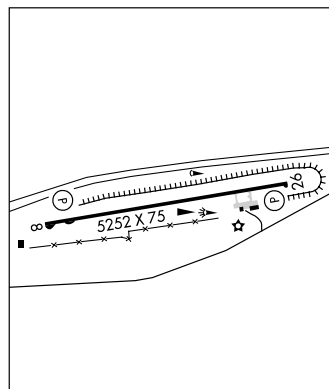
W80°42.77' 256° 32.7 NM to fld. 2120/06W. HIWAS.

**SUZZE NDB (MHW/LOM)** 335 MK N36°55.21' W81°14.60' 260°

5.4 NM to fld. NOTAM FILE MKJ. Unmonitored when arpt unattended.

**ILS** 110.5 I-MKJ Rwy 26. LOM SUZZE NDB. (LOC only.)

LOC unmonitored when arpt unattended.



**MARTINSVILLE**

**BLUE RIDGE** (MTV) 8 SW UTC-5(-4DT) N36°37.85' W80°01.10'  
 941 B S4 FUEL 100LL JET A OX 1, 2, 3, 4 NOTAM FILE MTV  
 RWY 12-30: H5002X100 (ASPH-GRVD) S-30, D-60 MIRL 0.6% up NW

RWY 12: REIL. PAPI(P4L)—GA 3.0° TCH 40'. Tree.

RWY 30: REIL. ODALS. PAPI (P4L)—GA 3.0° TCH 40'. Trees.

**AIRPORT REMARKS:** Attended 1300-2300Z. Deer on and in/ovf arpt.

ACTIVATE MIRL Rwy 12-30, PAPI Rws 12 and 30, REIL Rwy 12 and Rwy 30, and ODALS Rwy 30—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 118.45 (276) 957-3784. OTS indef.

**COMMUNICATIONS:** CTAF/UNICOM 122.7

® GREENSBORO APP/DEP CON 124.35 CLNC DEL 124.85

**RADIO AIDS TO NAVIGATION:** NOTAM FILE GSO.

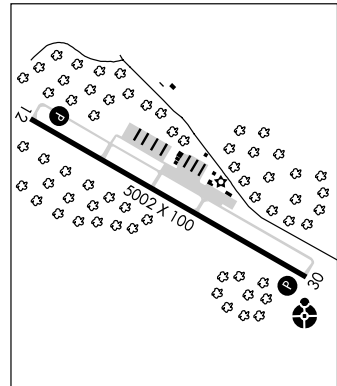
GREENSBORO (H) VORTAC 116.2 GSO Chan 109 N36°02.74'

W79°58.58' 360° 35.1 NM to fld. 879/03W. HIWAS.

**BALES NDB (MHW/LOM)** 396 UV N36°35.39' W79°55.04' 304°  
 5.5 NM to fld. NOTAM FILE MTV. Unmonitored when arpt  
 unattended.

**ILS/DME** 111.3 I-UMV Chan 50 Rwy 30. LOC only.

LOM BALES NDB. LOC/DME unmonitored when arpt unattended.



**CINCINNATI**  
 H-9B, 12G, L-26J  
 IAP

**MC LAUGHLIN SPB** (See CHESTER)

**MECKLENBURG-BRUNSWICK RGNL** (See SOUTH HILL)

**MELFA**

**ACCAMACK CO** (MFV) 1 W UTC-5(-4DT) N37°38.81' W75°45.66'

47 B FUEL 100LL JET A+ TPA—See Remarks NOTAM FILE MFV

RWY 03-21: H5000X100 (ASPH) S-26 MIRL

RWY 03: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Tree.

RWY 21: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Trees.

**AIRPORT REMARKS:** Attended May-Oct 1300-0100Z, Nov-Apr  
 1300-2300Z. Self serve fuel (100LL and JET A+) avbl 24 hrs.  
 Deer on and in/ovf arpt. TPA—897(850) light acft, 1547(1500)  
 heavy acft. MIRL Rwy 03-21 preset low ints, increase ints and  
 ACTIVATE REIL Rwy 03 and Rwy 21—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 118.175 (757) 787-5660.

**COMMUNICATIONS:** CTAF/UNICOM 122.8

® PATUXENT APP/DEP CON 127.95

GCO 135.075 (NORFOLK CLNC)

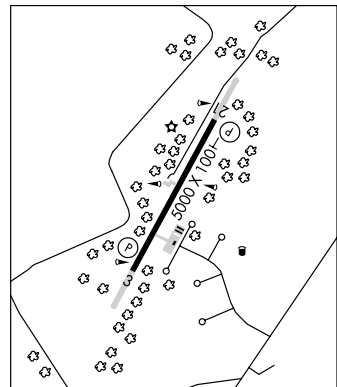
**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

CAPE CHARLES (L) VORTAC 112.2 CCV Chan 59 N37°20.85'

W75°59.86' 042° 21.2 NM to fld. 10/10W.

**NDB (MHW)** 336 BDB N37°34.22' W75°47.90' 032° 4.9 NM  
 to fld.

**ILS** 110.15 I-MFV Rwy 03. LOC only.



**WASHINGTON**  
 H-101, 121, L-361  
 IAP

**MIDDLE PENINSULA RGNL** (See WEST POINT)

**MONETA****SMITH MOUNTAIN LAKE** (W91) 4 SE UTC-5(-4DT) N37°06.46' W79°35.55'

CINCINNATI

892 B S4 FUEL 100LL NOTAM FILE DCA

L-26J

RWY 05-23: H3058X50 (ASPH) MIRL 1.2% up NE

IAP

RWY 05: Thld displcd 250'. Tree. RWY 23: REIL. Tree.

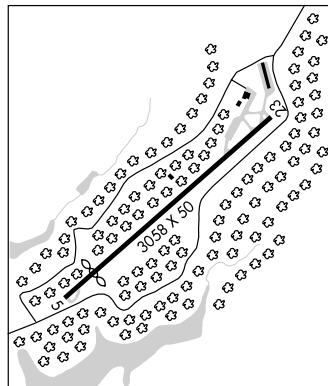
**AIRPORT REMARKS:** Attended dalgth hours. Parachute Jumping. Deer on and invof arpt. Rwy 23 REIL out of svc indefinitely. Rwy 05-23 MIRL OTS indef.

**COMMUNICATIONS:** CTAF/UNICOM 122.8

ROANOKE APP/DEP CON 135.0

**RADIO AIDS TO NAVIGATION:** NOTAM FILE LYH.

LYNCHBURG (L) VORTAC 109.2 LYH Chan 29 N37°15.28'  
W79°14.19' 248° 19.2 NM to fld. 880/05W. HIWAS.

**MONTEBELLO** N37°54.03' W79°06.41' NOTAM FILE DCA.

CINCINNATI

(L) VOR/DME 115.3 MOL Chan 100 030° 24.0 NM to Shenandoah Valley Rgnl.  
3460/05W.

H-10H, 12H, L-26J

VOR portion unusable: 205°-220° byd 10 NM blo 6000'.

DME portion unusable:

061°-088° byd 35 NM blo 6000'

330°-335° byd 30 NM blo 6000'

114°-120° byd 28 NM blo 6500'

335°-001° byd 30 NM blo 7000'

154°-220° byd 28 NM blo 8000'

RC0 122.1R 115.3T (LEESBURG RADIO)

**MOUNTAIN EMPIRE** (See MARION/WYTHEVILLE)**NAILR** N38°27.26' W77°54.32' NOTAM FILE DCA.

WASHINGTON

NDB (MHW) 351 MSQ 037°4.8 NM to Culpeper Rgnl.

L-29E, 34E, 36I, A

**NEW KENT CO** (See QUINTON)**NEW LONDON** (See FOREST)**NEW MARKET** (8W2) 2 W UTC-5(-4DT) N38°39.34' W78°42.48'

WASHINGTON

975 B S2 FUEL 100LL TPA-1800(825) NOTAM FILE DCA

L-22G

RWY 06-24: H2920X60 (ASPH) LIRL (NSTD)

RWY 06: Trees. Rgt tfc.

RWY 24: Thld displcd 900'. Trees.

**AIRPORT REMARKS:** Attended Mon-Fri 1300-2130Z. Unattended Thanksgiving, Christmas and New Years day. Fuel 24 hr credit card svc. Hot air balloons weekends early morning and late afternoon. Deer and birds on and invof rwy. Small holes adjacent to turn around area AER 24. Numerous cracks in rwy, conventional-gear acft be alert. Balloon repair station. Rwy 06-24 10' trees along fenceline parallel to rwy along south side. Rwy 06 lgtd thld relocated 100' and Rwy 24 lgtd thld relocated 930' for night ops, 2020' Rwy 06-24 lgts at ngt. Arpt lights opr dusk-0300Z. Rotating bcn ops dusk-0300Z. Rwy 06-24 NSTD LIRL thld lgts one fixture each side.

**COMMUNICATIONS:** CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

LINDEN (L) VORTAC 114.3 LDN Chan 90 N38°51.26' W78°12.33' 249° 26.4 NM to fld. 2440/06W.

**NEWPORT NEWS/WILLIAMSBURG INTL** (PHF) 9 NW UTC-5(-4DT)

WASHINGTON

N37°07.91' W76°29.58'

H-101, 12H, L-34E, 35D, 36H

42 B S4 FUEL 100LL, JET A OX 4 LRA Class I, ARFF Index B NOTAM FILE PHF IAP, AD

RWY 07-25: H8003X150 (CONC-GRVD) S-100, D-200, ST-175, DT-350 HIRL

RWY 07: MALSR, Trees.

RWY 25: REIL. VASI(V4L)—GA 3.0° TCH 55'. Trees.

RWY 02-20: H6526X150 (CONC-GRVD) S-100, D-200, ST-175, DT-350 HIRL

RWY 02: VASI(V4L)—GA 3.0° TCH 61'.

RWY 20: REIL. VASI(V4L)—GA 3.0° TCH 42'. Road.

**LAND AND HOLD SHORT OPERATIONS**

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 20	07-25	5200
RWY 25	02-20	6550

**AIRPORT REMARKS:** Attended continuously. PPR 45 minutes for unscheduled air carrier ops with more than 30 passenger seat call arpt manager 757-877-0221. Birds and deer on and invof arpt. Twy L and Twy J clsd indef. Rwy 07-25 less than full length and width is grooved. When twr clsd HIRL Rwy 02-20; VASI Rwy 02 and Rwy 20; REIL Rwy 20; HIRL Rwy 07-25 and twy lgts on continuously. ACTIVATE MALSR Rwy 07; REIL Rwy 25—CTAF. Rwy 07 MALSR unmonitored. Ldg fee for acft over 12,500 lbs. Flight Notification Service (ADCUS) available.

**WEATHER DATA SOURCES:** ASOS (757) 874-3682.**COMMUNICATIONS:** CTAF 118.7 ATIS 128.65 UNICOM 122.95

RCO 122.65 122.2 (LEESBURG RADIO)

① NORFOLK APP CON 125.7

② NORFOLK DEP CON 124.9

CLNC DEL 124.9 (when twr clsd)

TOWER 118.7 (1100-0400Z±) GND CON 121.9 CLNC DEL 121.65 PRE TAXI CLNC 121.65

**AIRSPACE:** CLASS D svc effective 1100-0400Z± other times CLASS E.**RADIO AIDS TO NAVIGATION:** NOTAM FILE ORF.

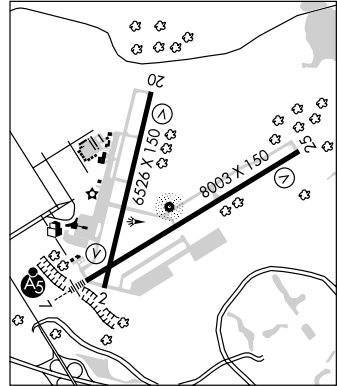
NORFOLK (H) VORTAC 116.9 ORF Chan 116 N36°53.51' W76°12.02' 323° 20.1 NM to fld. 20/07W.

HENRY NDB (MHW) 375 PJS N37°07.97' W76°29.59' at fld. NOTAM FILE DCA.

ILS/DME 110.1 I-PHF Chan 38 Rwy 07. Class IA. Unmonitored when tower closed.

ILS/DME 110.1 I-DHY Chan 38 Rwy 25. Class IE.

ILS/DME 109.3 I-FJQ Chan 30 Rwy 20. (LOC only)

**NEW RIVER VALLEY** (See DUBLIN)**NORFOLK****CHESAPEAKE RGNL** (CPK) 12 S UTC-5(-4DT) N36°39.94' W76°19.24'

WASHINGTON

19 B S4 FUEL 100LL, JET A TPA—See Remarks NOTAM FILE CPK

H-101, 12H, L-35D

RWY 05-23: H5500X100 (ASPH-GRVD) S-30 HIRL

IAP

RWY 05: MALSR. PAPI(P4L)—GA 3.0° TCH 42'. Tree.

RWY 23: REIL. PAPI(P4L)—GA 3.0° TCH 42'. Tree. Rgt tfc.

**AIRPORT REMARKS:** Attended 1300-0100Z±. For fuel after hrs call in advance 757-421-9000. Self-svc avbl. Deer and geese on and invof rwy. Small trees along east side of rwy approximately 400' to 500' off rwy centerline. Noise abatement procedures in effect; ctc arpt manager 757-432-8110. TPA 1019(1000), turbine/large acft 1519(1500). ACTIVATE HIRL Rwy 05-23, MALSR Rwy 05 and REIL Rwy 23—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 123.675 (757) 421-0252.**COMMUNICATIONS:** CTAF/UNICOM 123.05

① NORFOLK APP/DEP CON 118.9 GCO 135.075 (NORFOLK CLNC)

**RADIO AIDS TO NAVIGATION:** NOTAM FILE ORF.

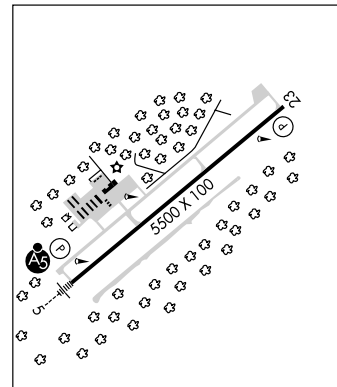
NORFOLK (H) VORTAC 116.9 ORF Chan 116 N36°53.51'

W76°12.02' 210° 14.8 NM to fld. 20/07W.

CHESI NDB (MHW-LOM) 233 EY N36°35.99' W76°22.91' 046° 4.9 NM to fld.

ILS/DME 111.7 I-EYK Chan 54 Rwy 05. Class IB. LOM

CHESI NDB. LOM unusable byd 15 NM.



**HAMPTON ROADS EXECUTIVE** (PVG) 7 SW UTC-5(-4DT) N36°46.81' W76°26.93'

WASHINGTON

23 B S4 FUEL 100LL, JET A TPA—See Remarks NOTAM FILE DCA

L-350, 36H

RWY 10-28: H4056X70 (ASPH) S-12.5 MIRL

IAP

RWY 10: Trees. Rgt tfc, fixed wing acft.

RWY 28: Thld dspcd 200'. Trees.

RWY 02-20: H3524X70 (ASPH) S-12.5 MIRL

RWY 02: Thld dspcd 898'. Road.

RWY 20: Thld dspcd 928'. Trees. Rgt tfc, fixed wing acft.

**AIRPORT REMARKS:** Attended Apr-Oct 1300-0100Z, Nov-Mar 1300-2300Z. Extensive helicopter training. Deer on and in ovf arpt. 1049 ft MSL towers 1.5 NM NW of field. Rwy 10-28 preferred use rwy. Be alert for multiple tall twrs northwest of arpt. TPA-700(677) for helicopters. ACTIVATE MIRL Rwy 02-20 and Rwy 10-28—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 118.375 (757) 465-2175.**COMMUNICATIONS:** CTAF/UNICOM 123.0

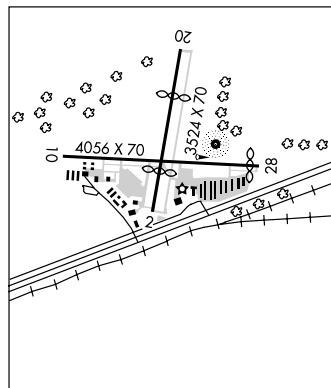
① NORFOLK APP/DEP CON 118.9

**RADIO AIDS TO NAVIGATION:** NOTAM FILE ORF.

NORFOLK (H) VORTAC 116.9 ORF Chan 116 N36°53.51'

W76°12.02' 248° 13.7 NM to fld. 20/07W.

PORTSMOUTH NDB (MHW) 241 PVG N36°46.81' W76°26.73' at fld. Unmonitored when arpt unattended. NOTAM FILE PVG.

**NORFOLK INTL** (ORF) 3 NE UTC-5(-4DT) N36°53.68' W76°12.07'

WASHINGTON

26 B S4 FUEL 100LL, JET A OX 1, 2, 4 LRA Class I, ARFF Index C

H-101, 12H, L-350, 36H

NOTAM FILE ORF

IAP, AD

RWY 05-23: H9001X150 (ASPH-CONC-GRVD) S-150, D-200, ST-175, DT-350, DDT-475 HIRL CL

RWY 05: MALSR. TDZL. PAPI(P4L)—GA 3.0° TCH 67'. Thld dspcd 1000'. Trees. Rgt tfc.

RWY 23: MALSR. PAPI(P4L)—GA 3.0° TCH 55'. Trees.

RWY 14-32: H4875X150 (ASPH-GRVD) S-75, D-100, ST-127 MIRL

RWY 14: REIL. PAPI(P2L)—GA 3.0° TCH 34'. Thld dspcd 213'.

Road. Rgt tfc.

RWY 32: REIL. PAPI(P2L)—GA 3.0° TCH 33'. Tree.

**LAND AND HOLD SHORT OPERATIONS**

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 14	05-23	2850
RWY 23	14-32	6300

**RUNWAY DECLARED DISTANCE INFORMATION**

RWY 05:	TORA-9001	TODA-9001	ASDA-9001	LDA-8001
RWY 14:	TORA-4875	TODA-4875	ASDA-4875	LDA-4662
RWY 23:	TORA-9001	TODA-9001	ASDA-9001	LDA-9001
RWY 32:	TORA-4875	TODA-4875	ASDA-4875	LDA-4875

**AIRPORT REMARKS:** Attended continuously. Parachute Jumping. Flocks of birds on and in ovf arpt. Twy D clsd indef. Noise abatement procedures in effect. Rwy 05-23 center portion asph, 1500' each end conc. Rwy 05-23 grooved 7300 ft X130 ft standard grooving beginning 200 ft from approach end Rwy 05. Ldg fee. Flight Notification Service (ADCUS) available.

**WEATHER DATA SOURCES:** ASOS (757) 460-9348. WSP.**COMMUNICATIONS:** ATIS 127.15 757-464-1390

RCO 122.1R 116.9T (LEESBURG RADIO)

① APP CON 118.9(010°-080°) (180°-310°) ② DEP CON 125.2

TOWER 120.8 GND CON 121.9 CLNC DEL 118.5

**AIRSPACE:** CLASS C svc continuous ctc APP CON 125.7(311°-009°) 118.9(010°-080°) (180°-310°)**RADIO AIDS TO NAVIGATION:** NOTAM FILE ORF.

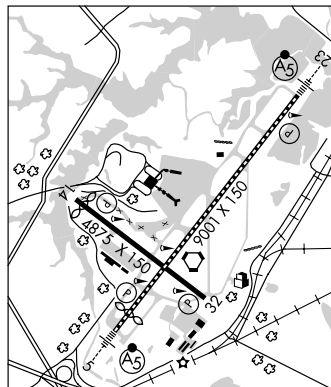
(H) VORTAC 116.9 ORF Chan 116 N36°53.51' W76°12.02' at fld. 20/07W.

VORTAC unusable byd 30 NM blo 2500'.

INGLE NDB (LOM) 329 OR N36°50.43' W76°15.08' 046° 4.1 NM to fld.

ILS/DME 109.1 I-ORF Chan 28 Rwy 05. Class IB. LOM INGLE NDB. GS unusable for coupled apch blo 744'.

ILS/DME 109.1 I-JZQ Chan 28 Rwy 23. Class IA.



**NORFOLK NS** (CHAMBERS FLD) (NGU)(KNGU) N O NW UTC-5(-4DT)

**WASHINGTON**

N36°56.25' W76°17.36'

H-101, 12H, L-350, 36H

17 B AOE NOTAM FILE DCA

Not insp.

DIAP, AD

**RWY 10-28:** H8371X200 (ASPH-CONC-GRVD) PCN 47 R/B/W/T HIRL CL

**RWY 10:** ALSF2. OLS. TDZL. REIL. PAPI(P4R)—GA 3.0° TCH 35'. Thld dspcd 304'.

**RWY 28:** SSALS. OLS. TDZL. REIL. PAPI(P4R)—GA 3.0° TCH 37'. Thld dspcd 995'. Rgt tfc.

**RUNWAY DECLARED DISTANCE INFORMATION**

**RWY 10:** LDA-8067

**RWY 28:** LDA-7376

**ARRESTING GEAR/SYSTEMS**

**RWY 10:** HOOK E28(B)(1500')

HOOK E28(B)(1060') **RWY 28**

**MILITARY SERVICE: A-GEAR** Avoid centerline lgt Rwy 10-28 during cable engagement to prevent tailhook skip. Distance Rwy 28 measured from dspcd thld. E-28(B) in raised position at dep end of rwy only. Short-fld gear avbl with 20 minutes prior notice. **JASU** (NC10-C) (NC-8A/A1) (NCPP-105 Ctc Air Ops Duty Officer to ensure avbl.) **FUEL** J5. No tran helicopter hot pit without prior coordination with host squadron.

**FLUID ADJ** SP PRESAIR LHOX LOX **OIL** O-128-132-133-148-156 **TRAN ALERT** Limited tran maintenance avbl weekdays only 1200-2000Z+. Tran maintenance unavbl other times. 2 hr prior notice required for LOX. Lavatory svc unavbl for C-130 acft. Potable water unavbl.

**MILITARY REMARKS:** See FLIP AP/1 Supplementary Arpt Remark. **RSTD** PPR only DSN 262-3419/3429. AMC/ATOC DSN 564-4735/3922, C757-444-4735/3922. Acft utilizing AMC terminal ctc ATOC/AMC terminal 15 min prior arr with load report. Acft overseas ctc AMC/ATOC via phone patch 2 hr prior arr for CSTMS. All other acft, ctc Base Ops 15 min prior arr. **CAUTION** Extensive fish spotter acft activity (single engine general aviation acft) upwards from 1500' over Chesapeake Bay and adjacent coastal waters. Arriving/departing Traffic Collision Avoidance System equipped acft expect numerous Traffic Collision Avoidance System alerts from ships or transiting into/out of the Chesapeake and coastal waters. Extensive VFR tfc opr west of Chambers Class D and Norfolk Class C airspace. Bird hazard. **TFC PAT** Basic fixed wing VFR minimums 1000' and 3 NM. Heliport Rwy 09R-27L, emerg use only. **NS ABTMT** No practice apch Mon-Sat 0400-1200Z+, Sun 0400-1800Z+. No helicopter overflight Willoughby Spit except via Point Xray (Chambers TACAN R-042/1.5 DME) at 500'.

**WEATHER DATA SOURCES:** ASOS DSN 564-9173 C(757) 444-9173.

**COMMUNICATIONS:** SFA ATIS 118.425 342.0

Ⓡ **APP CON** 118.9 273.475 (010°-310°) 125.7 335.625 (311°-009°)

**CHAMBERS TOWER** 124.3 290.5 379.15 **GND CON** 121.8 370.85 **CLNC DEL** 120.7 348.0

Ⓡ **DEP CON** 363.125

**NAVYNORFOLK HELI TWR** 126.375 290.5 Opr Mon-Fri 1300-0400Z+, clsd Sat, Sun, and holidays.

**NAVYNORFOLK HELI GND CON** 298.95 **AMC/ATOC** 130.65 349.5 **METRO** 271.6 **BASE OPS** 131.375 268.8

**RADIO AIDS TO NAVIGATION:** NOTAM FILE ORF.

(H) **VORTAC** 116.9 ORF Chan 116 N36°53.51' W76°12.02' 310° 5.1 NM to fld. 20/07W.

**CHAMBERS (L) TACAN** Chan 86Y NGU (113.95) N36°56.40' W76°16.64' at fld. 24/10W. NOTAM FILE NGU.

TACAN unusable:

190°-195° byd 35 NM

261°-269° byd 20 NM

**ASR/PAR**

**COMM/NAV/WEATHER REMARKS:** Radar see Terminal FLIP for Radar Minima.

**OCEANA NAS** (APOLLO SOUCEK FLD) (NTU)(KNTU) N 3 SW UTC-5(-4DT)

**WASHINGTON**

N36°49.36' W76°01.91'

H-101, 12H, L-35D

23 B NOTAM FILE DCA Not insp.

DIAP, AD

**RWY 05R-23L:** H12000X200 (PEM) PCN 50 R/C/W/T HIRL CL

**RWY 05R:** ALSF1. OLS. **RWY 23L:** ALSF1. OLS.

**RWY 05L-23R:** H8001X150 (CONC) PCN 18 R/C/W/T HIRL

**RWY 05L:** OLS. **RWY 23R:** OLS.

**RWY 14L-32R:** H8001X150 (CONC) PCN 19 R/C/W/T HIRL

**RWY 14L:** OLS. **RWY 32R:** OLS.

**RWY 14R-32L:** H8000X200 (PEM) PCN 58 R/C/W/T HIRL CL

**RWY 14R:** OLS. **RWY 32L:** ALSF1. OLS.

**ARRESTING GEAR/SYSTEMS**

**RWY 05R:** HOOK E28(B) (1416')

HOOK E28(B) (1438') **RWY 23L**

**RWY 05L:** HOOK E28(B) (1476')

HOOK E28(B) (1500') **RWY 23R**

**RWY 14L:** HOOK E28(B) (1446')

HOOK E28(B) (1500') **RWY 32R**

**RWY 14R:** HOOK E28(B) (1420')

HOOK E28(B) (1442') **RWY 32L**

**MILITARY SERVICE: A-GEAR** Arresting gear normally rigged all rwys. exc inboard rwy shortfield arresting gear. **JASU**

(NC-10C) (NC-108) (NCP-105 Ctc Air Ops Duty Officer to ensure available.) **FUEL** J5. Limited fuel svc avbl

0330-1300Z† due to personnel restriction. Tran hot pit avbl Mon-Fri 1300-0330Z†, PPR, unavbl

weekends/holidays.

**FLUID** SP LHOX LOX **OIL** O-156 **TRAN ALERT** Tran line Mon-Fri 1230-0330Z†, Sat-Sun and holidays

1300-2300Z†. Limited parking/storage facilities. During peak periods extensive delay in tran servicing.

JOSAC/NALO have priority. No LAV svc or potable water avbl.

**MILITARY REMARKS:** See FLIP AP/1 Supplementary Arpt Information. **RSTD** PPR all non-Oceania based acft DSN

433-2162/2163, C757-433-2162/2163. Straight-in apch to final ldg only 0300-1200Z†, Sun 0300-1800Z†.

All fixed wing and helicopter flight abv 1000' arr/dep NTU must file IFR flight plan. VFR/special VFR helicopter

route mandatory for all helicopter flights at or blo 1000'. **CAUTION** During VMC all dep and practice instrument

apch fly rwy heading and do not exceed 1000' until past dep end due extensive overhead traffic. **TFC PAT**

Simultaneous ldg/dep are conducted on parallel rwy located 700' apart. Extensive jet training Oceana

NAS/Fentress NALF. Reduced rwy separation standard in effect USN/USMC acft. During peak periods expect

one app to full stop ldg.

**NS ABTMT** Strict compliance rqr with program outlined in FLIP AP/1 Supplementary Arpt Remark.

**CSTMS/AG/IMG** Avbl Oceana NAS based tactical acft only. Require 48 hr prior notice to Base Ops. Aircrew rqr to

remain in acft until released by Customs.

**COMMUNICATIONS: SFA** **ATIS** 317.6

® **APP/DEP CON** 119.6 288.3 (NORTH NTU R-360°-150°) 123.9 266.8 (SOUTH NTU R-151°-359°) 323.05

**TOWER** 127.075 360.2 **GND CON** 336.4 **CLNC DEL** 254.4

**PMSV METRO** 387.4 **BASE OPS** 284.9 **ATCOM** 6723

**RADIO AIDS TO NAVIGATION:** NOTAM FILE NTU.

(L) **TACAN** Chan 113 NTU (116.6) N36°49.45' W76°02.22' at fld. 76/10W.

**TACAN** unusable:

000-059° byd 30 NM blo 3,000'

210°-239° byd 20 NM blo 4,000'

090°-109° byd 30 NM blo 1,500'

240°-290° blo 6,000'

110°-199° byd 30 NM blo 2,000'

291°-339° byd 15 NM blo 5,000'

200°-209° byd 20 NM blo 2,000'

340°-359° byd 20 NM blo 3,000'

**ASR/PAR**

**COMM/NAV/WEATHER REMARKS:** Radar see Terminal FLIP for Radar Minima.



**ORANGE CO** (OMH) 3 E UTC-5(-4DT) N38°14.83' W78°02.74'

465 B S2 FUEL 100LL, JET A+ NOTAM FILE OMH

RWY 08-26: H3200X75 (ASPH-AFSC) S-12 MIRL 0.6% up NE

RWY 08: REIL. PAPI (P2L)—GA 4.0° TCH 39'. Trees.

RWY 26: REIL. PAPI (P2L)—GA 4.0° TCH 40'. Trees.

**AIRPORT REMARKS:** Attended 1330-2300Z†. Fuel 100LL self svc after hrs. Fuel Jet A+ self svc after hrs. Parachute Jumping. ACTIVATE MIRL Rwy 08-26, REIL Rwy 08 and Rwy 26 and PAPI Rwy 08 and Rwy 26—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 118.075 (540) 672-0505.

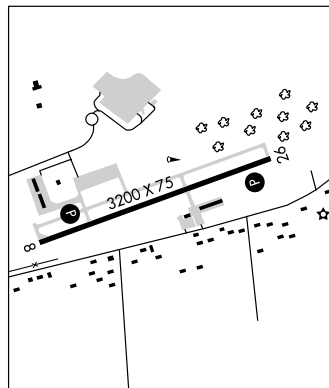
**COMMUNICATIONS:** CTAF/UNICOM 122.8

Ⓡ POTOMAC APP/DEP CON 132.85

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

GORDONSVILLE (H) VORTAC 115.6 GVE Chan 103 N38°00.82' W78°09.18' 026° 14.9 NM to fld. 382/06W. HIWAS.

WASHINGTON  
L-34E, 36H, A  
IAP



**PETERSBURG** N37°07.81' W77°34.48' NOTAM FILE PTB.

NDB (MHW) 284 PTB 053° 4.6 NM to Dinwiddie County.

Unmonitored when arpt unattended.

WASHINGTON  
L-36H

## PETERSBURG

**DINWIDDIE CO** (PTB) 5 SW UTC-5(-4DT) N37°11.03' W77°30.44'

193 B S4 FUEL 100LL, JET A TPA-993(800) NOTAM FILE PTB

RWY 05-23: H5002X100 (ASPH-GRVD) S-12.5, ST-83 MIRL

RWY 05: REIL. ODALS. PAPI(P4L)—TCH 42'. Tree.

RWY 23: REIL. PAPI(P4L)—GA 3.0° TCH 40'. Tree.

RWY 14-32: H3061X50 (ASPH) S-4

RWY 14: Tree. RWY 32: Tree.

**AIRPORT REMARKS:** Attended Apr-Oct Mon-Fri 1300-0000Z†, Apr-Oct. Sat-Sun 1200-0000Z†, Nov-Mar Mon-Fri 1300-2300Z†, Nov-Mar Sat-Sun 1200-2300Z†. Self-svc fueling available after hrs. Rwy 14-32 some cracking mainly at the Rwy 14 end. Rwy 14-32 broken pavement on shoulders byd 25 ft left and right of centerline. Rwy 14-32 gross weight limited by arpt operator to 4000 lbs single wheel gear. Ultralight activity on and invof arpt. ACTIVATE MIRL Rwy 05-23, PAPI Rwy 05 and Rwy 23, ODALS Rwy 05 and REIL Rwy 05 and Rwy 23—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 133.325 (804) 861-5551.

**COMMUNICATIONS:** CTAF/UNICOM 122.7

Ⓡ POTOMAC APP/DEP CON 134.7

GCO 135.075 (POTOMAC

CLNC)

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

HOPEWELL (L) VORTAC 112.0 HPW Chan 57 N37°19.73'

W77°06.96' 251° 20.7 NM to fld. 70/06W. HIWAS.

NDB (MHW) 284 PTB N37°07.81' W77°34.48' 053° 4.6 NM to fld. NOTAM FILE PTB. Unmonitored when arpt unattended.

ILS 110.3 I-JLS Rwy 05. LOC only. Unmonitored when arpt unattended.

• • • • •  
HELIPAD H1: H15X25 (CONC)

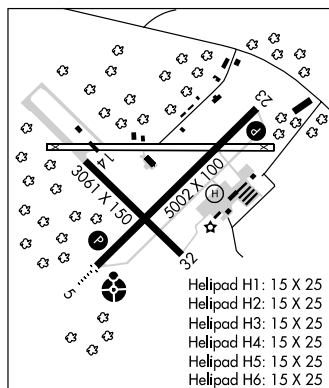
HELIPAD H2: H15X25 (CONC)

HELIPAD H3: H15X25 (CONC)

HELIPAD H4: H15X25 (CONC)

HELIPAD H5: H15X25 (CONC)

HELIPAD H6: H15X25 (CONC)



Helipad H1: 15 X 25  
Helipad H2: 15 X 25  
Helipad H3: 15 X 25  
Helipad H4: 15 X 25  
Helipad H5: 15 X 25  
Helipad H6: 15 X 25

**PORTSMOUTH** N36°46.81' W76°26.73' NOTAM FILE PVG.

NDB (MHW) 241 PVG at Hampton Roads Executive. Unmonitored when arpt unattended.

WASHINGTON  
L-35D, 36H

**PULASKI** N37°05.26' W80°42.77' NOTAM FILE PSK.

**CINCINNATI**

(H) **VORTAC** 116.8 PSK Chan 115 031°2.9 NM to New River Valley. 2120/06W.

**H-10H, 12H, L-26I**

**HIWAS.**

DME portion unusable:

034°-038° byd 25 NM

287°-316° byd 25 NM blo 10,000'

135°-175° byd 25 NM blo 10,000'

315°-335° byd 10 NM blo 10,000'

200°-225° byd 10 NM

334°-039° byd 25 NM blo 10,000'

284°-286° byd 10 NM blo 10,000'

**RCO** 122.1R 116.8T (LEESBURG RADIO)

**RCO** 122.3 (LEESBURG RADIO)

**QUANTICO MCAF** (TURNER FLD) (NYG) MC 1 S UTC-5(-4DT) N38°30.22' W77°18.30'

**WASHINGTON**

10 B NOTAM FILE DCA

Not insp.

**L-29E, 34E, 36I, A**

**RWY 02-20:** H4250X200 (PEM) PCN 51 R/B/W/T HIRL

**DIAP, AD**

**RWY 02:** PAPI.

**MILITARY SERVICE:** LGT Rwy 02 PAPI and PAR runway point of intercept not coincident. Rwy 02 centerline lighting first 1000'. **FUEL J8. TRAN ALERT** No transient maintenance avbl. Require qualified crew member to assist in cold refueling.

**MILITARY REMARKS:** Opr Mon-Thur 1300-0200Z†, Fri 1300-2200Z†, closed Sat, Sun and holidays. **RSTD** All tran acft 24 hr PPR; Ops chief DSN 278-2085/2908, C703-784-2085/2908. After 2200Z† and on weekends call DSN 278-0920, C703-432-0920, C703-675-4144 for PPR. All tailhook acft requiring A-gear ldg, advance notice required. Requesting unit must coordinate with MWSS via Marine Corps Air Facility Quantico ops officer in charge. Clsd fld opr not authorized for tran acft.

**CAUTION** Twy C clsd indef. Limited Visiting Acft Line parking. Bird hazard vicinity Rwy 02-20 SR-SS. Heavy migratory bird activity Oct-Feb. **NS ABTMT** The area in and around the Quantico Class D Airspace is noise sensitive. Helicopters transit Quantico Class D Airspace at or abv 500' AGL. **CUSTOMS/AGRICULTURE/IMMIGRATION:** **CSTMS/AG/IMG** Avbl with 72 hr prior notice PPR only. **MISC** MCAF Quantico and R-6608 lie within the Washington ADIZ. Pilots must adhere to ADIZ reporting procedures in both these areas. Category II crash/fire rescue svc. Rwy 02 and Rwy 20 grooved first 1300'. MCAF Quantico has no provisions for Space A passengers. Space A passengers cannot be on-loaded or off-loaded due to security issues.

**COMMUNICATIONS:** **SFA** **ATIS** 263.15 (Mon and Fri 1300-2200Z†, Tue 1600-0200Z†, Wed-thu 1300-0200Z†)

® **ARRIVAL** 127.05 290.375 (Mon 1600-2200Z†, Tue-Thur 1300-0200Z†, Fri 1300-2200Z†, open Sat, Sun and holidays by NOTAM only)

® **POTOMAC APP/DEP CON** 124.65 306.925

**TOWER** 118.6 360.2 (Mon-Thur 1300-0200Z†, Fri 1300-2200Z†, closed Sat, Sun and holidays.)

**GND CON** 121.75 340.2

**PMSV METRO/BASE OPS** 355.3

**AIRSPACE:** **CLASS D** svc Mon-Thur 1300-0200Z†, Fri 1300-2200Z†, closed Sat, Sun, and holidays, other times **CLASS G.**

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

**BROOKE (L) VORTAC** 114.5 BRV Chan 92 N38°20.18' W77°21.18' 022° 10.3 NM to fld. 145/9W.

**ASR/PAR** (Mon 1600-2200Z†, Tue-Thu 1300-0200Z†, Fri 1300-2200Z†, open Sat, Sun and holidays by NOTAM only)

**COMM/NAV/WEATHER REMARKS:** Radar see Terminal FLIP for Radar Minima.

**QUINTON****NEW KENT CO** (W96) 8 W UTC-5(-4DT) N37°30.19' W77°07.53'**WASHINGTON**

123 B FUEL 100LL TPA-923(800) NOTAM FILE DCA

L-34E, 36H

RWY 10-28: H3600X75 (ASPH) S-12.5 MIRL

IAP

RWY 10: REIL. PAPI(P2R)—GA 4.0° TCH 45'. Tree.

RWY 28: REIL. PAPI(P2L)—GA 4.0° TCH 45'. Tree.

**AIRPORT REMARKS:** Attended 1400-2200Z. Fuel avbl 24 hrs, credit card required when unattended. Deer on and in vicinity of arpt. Ultralight activity on and in vicinity of arpt. Rotating bcn not visible when approaching from the north. MIRL and REIL Rwy 10-28 preset low ints; to increase ints ACTIVATE—CTAF.

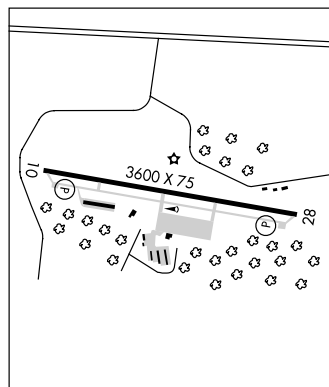
**COMMUNICATIONS:** CTAF/UNICOM 122.8

Ⓡ POTOMAC APP/DEP CON 126.4

GCO 135.075 (POTOMAC CLNC) OTS indef.

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

HOPEWELL (L) VORTAC 112.0 HPW Chan 57 N37°19.73' W77°06.96' 003° 10.5 NM to fld. 70/06W. HIWAS.

**RICHMOND****TAZEWELL CO** (JFZ) 2S UTC-5(-4DT) N37°03.83' W81°47.90'**CINCINNATI**

2653 B FUEL 100LL, JET A+ NOTAM FILE 6V3

L-26H

RWY 07-25: H4300X75 (ASPH) S-12.5, D-18 MIRL

IAP

RWY 07: REIL. PAPI(P2L)—GA 4.0° Tree.

RWY 25: REIL. PAPI(P2L)—GA 4.0° TCH 53'. Tree.

**AIRPORT REMARKS:** Attended 1300-2300Z. MIRL Rwy 07-25 preset low ints; to increase ints and ACTIVATE REIL Rwy 07, Rwy 25 and PAPI Rwy 07 and Rwy 25—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 118.075 (276) 596-9927.**COMMUNICATIONS:** CTAF/UNICOM 123.05

Ⓡ INDIANAPOLIS CENTER APP CON 126.575

Ⓡ ATLANTA CENTER DEP CON 132.9

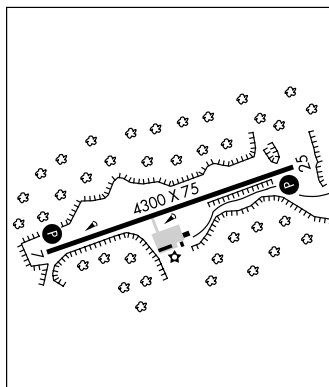
GCO 135.075 (ATLANTA CLNC and DCA FSS)—unreliable.

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

GLADE SPRING (L) VOR/DME 110.2 GZG Chan 39 N36°49.51' W82°04.74' 045° 19.7 NM to fld. 4200/02W. HIWAS.

ILS/DME 109.75 I-JFZ Chan 34(Y) Rwy 25. LOC only.

DME unusable byd 17 NM blo 5900'.

**RICHMOND** N37°30.14' W77°19.22' NOTAM FILE RIC.**WASHINGTON**

(H) VORTAC 114.1 RIC Chan 88 at Richmond Intl. 159/09W.

H-10H, 12H, L-34E, 36H

RCO 122.4 122.2 122.1R 114.1T (LEESBURG RADIO)

**RICHMOND****CHESTERFIELD CO** (FCI) 4 SW UTC-5(-4DT) N37°24.39' W77°31.49'

WASHINGTON

236 B S4 FUEL 100LL, JET A OX 3 TPA—See Remarks LRA NOTAM FILE DCA

H-10H, 12H, L-36H

RWY 15-33: H5500X100 (ASPH-GRVD) S-60, D-80 HIRL 0.7% up NW

IAP

RWY 15: REIL. PAPI(P4L)—GA 3.0° TCH 42'. Antenna.

RWY 33: MALSR. PAPI(P4L)—GA 3.0° TCH 53'. Pole.

**AIRPORT REMARKS:** Attended 1200-0300Z†. Fuel after hrs call 804-271-7793 between 0300-1200Z†. 400 ft twr 5 NM N arpt. Aircraft on ILS approach to Richmond Intl crossing over arpt. Noise sensitive area north of arpt. No wind voluntary use of Rwy 15 preferred. Med-flight, irregular departure pattern. Helicopter parking adjacent to Twy C. Rwy 15 REIL OTS indef. TPA—1236(1000) single engine, 1736(1500) multi-engine. HIRL Rwy 15-33 preset low ints; increase ints and ACTIVATE MALSR Rwy 33 and REIL Rwy 15—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 128.625 (804) 271-8426.**COMMUNICATIONS:** CTAF/UNICOM 123.05

FLAT ROCK RCO 122.1R 113.3T (LEESBURG RADIO)

® POTOMAC APP/DEP CON 134.7 POTOMAC CLNC DEL 124.6

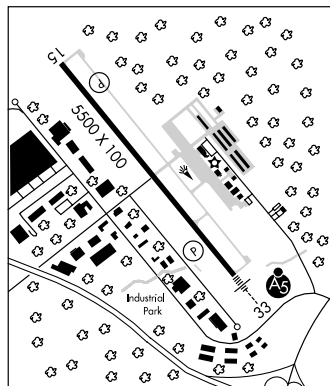
**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

FLAT ROCK (H) VORTAC 113.3 FAK Chan 80 N37°31.71'

W77°49.69' 123° 16.2 NM to fld. 460/06W.

ILS/DME 108.3 I-CFU Chan 20 Rwy 33. Class IB.

LOC/DME unmonitored when arpt unattended.



**RICHMOND INTL** (RIC) 6 E UTC-5(-4DT) N37°30.31' W77°19.18'

**WASHINGTON**

167 B S4 FUEL 100LL, JET A OX 3, 4 TPA—See Remarks LRA

H-10H, 12H, L-34E, 36H

Class I, ARFF Index C NOTAM FILE RIC

IAP, AD

**RWY 16-34:** H9003X150 (ASPH-GRVD) S-125, D-200, ST-175, DT-340 HIRL CL

**RWY 16:** MALSR. VASI(V4L)—GA 3.0°TCH 56'.

**RWY 34:** ALSF2. TDZL.

**RWY 02-20:** H6607X150 (ASPH-GRVD) S-125, D-200, ST-175, DT-340 HIRL

**RWY 02:** MALSR. VASI(V4R)—GA 3.0°TCH 53'. Pole.

**RWY 20:** REIL. VASI(V4L)—GA 3.0°TCH 52'. Tree.

**RWY 07-25:** H5326X100 (ASPH-GRVD) S-125, D-200, ST-175, DT-340 HIRL

**RWY 07:** Railroad.

**RWY 25:** REIL. VASI(V4L)—GA 3.0° TCH 52'. Tree.

**RUNWAY DECLARED DISTANCE INFORMATION**

**RWY 02:** TORA-6607 TODA-6607 ASDA-6607 LDA-6607

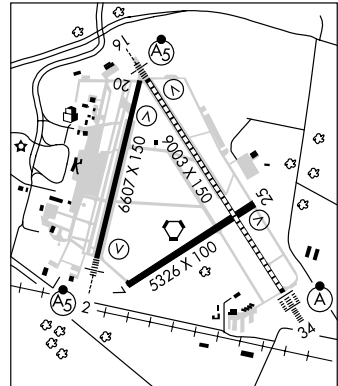
**RWY 07:** TORA-5326 TODA-5326 ASDA-5326 LDA-5326

**RWY 16:** TORA-9003 TODA-9003 ASDA-9003 LDA-9003

**RWY 20:** TORA-6607 TODA-6607 ASDA-6607 LDA-6607

**RWY 25:** TORA-5326 TODA-5326 ASDA-5326 LDA-5326

**RWY 34:** TORA-9003 TODA-9003 ASDA-9003 LDA-9003



**AIRPORT REMARKS:** Attended continuously. Tower 245 ft AGL 2.5 NM NW; unlighted. 220 ft MSL crane (mkd and lgt'd) 5.4 NM south of arpt. Bird activity invof all rwys and twys and invof arpt. Non-radio equipped vehicles crossing midfield Twys C, E, and H and driving on Twy L south of Rwy 07-25. No practice landings 0300-1200Z+. Hold line Rwy 20 east side located across Rwy 34 150' from dep end. Hold line Rwy 20 west side across Twy A and also serves as hold line for Rwy 16; signage indicates both rwys. Due to the close proximity to Rwy 02-20, Twy U signage may be behind acft, once clear of Rwy 02-20. ATC clearance required for pushbacks onto movement areas. All acft with wingspans greater than 118' and wheel bases greater than 59' are restricted from using Twys J, K, R, (between Twy A and FSDO ramp), S, T (south of Twy J), and V (west of Twy A). Twys M, M1, M2, M3 and Twy R west of FSDO designated for acft with wingspan less than 79'. Twy A between Twy C and Twy E restricted from use by acft wingspans greater than 171'. Twy T (north of Twy F) restricted from use by acft with wingspans greater than 118'. Intersection requires judgemental oversteering. Air carrier apron clsd to unscheduled acft weighing under 35,000 lbs. No edge lgts on Twys M and S—reflectors only. The following areas not visible from the twr: portions of the air carrier apron, Army National Guard acft parking ramp. TPA-1200(1033) single engine, lgt acft, 1700(1533) all others. Ldg fee. Flight Notification Service (ADCUS) available.

**WEATHER DATA SOURCES:** ASOS (804) 236-1091.

**COMMUNICATIONS:** ATIS 119.15 UNICOM 122.95

**FLAT ROCK RCO** 122.1R 113.3T (LEESBURG RADIO)

**RCO** 122.4 122.2 122.1R 114.1T (LEESBURG RADIO)

Ⓡ **POTOMAC APP CON** 126.4 (031°-170°) 134.7 (171°-320°) 126.8 (321°-030°) 118.2

**TOWER** 121.1 **GND CON** 121.9 **POTOMAC CLNC DEL** 127.55

Ⓡ **POTOMAC DEP CON** 126.4 (031°-170°) 134.7 (171°-320°) 126.8 (321°-030°)

**AIRSPACE:** CLASS C svc continuous ctc **APP CON**

**RADIO AIDS TO NAVIGATION:** NOTAM FILE RIC.

(H) **VORTAC** 114.1 RIC Chan 88 N37°30.14' W77°19.22' at fld. 159/09W.

**ILS** 110.9 I-EZD Rwy 02. Class II.

**ILS** 110.7 I-BNE Rwy 34. Class IIIE.

**ILS** 110.7 I-RGJ Rwy 16. Class IA.

**RICHMOND/ASHLAND****HANOVER CO MUNI** (OFP) 8 N UTC-5(-4DT) N37°42.54' W77°26.20'**WASHINGTON**

207 B S4 FUEL 100LL, JET A OX 1, 2, 3, 4 TPA-1007(800) NOTAM FILE OFP H-10H, 12H, L-34E, 36H IAP

RWY 16-34: H5402X100 (ASPH-PFC) S-40 MIRL

RWY 16: REIL. PAPI(P4L). Tree. RWY 34: REIL. Trees.

**AIRPORT REMARKS:** Attended Apr-Sep 1200-0200Z†, Oct-Mar 1200-0000Z†. For acft svcs call 804-798-6500. Deer and birds on and in/ov arpt. Noise sensitive area S of arpt. ACTIVATE MIRL Rwy 16-34; REIL Rwsy 16 and 34-CTAF.

**WEATHER DATA SOURCES:** ASOS 119.025 (804) 752-2902 (Except thunderstorm.)

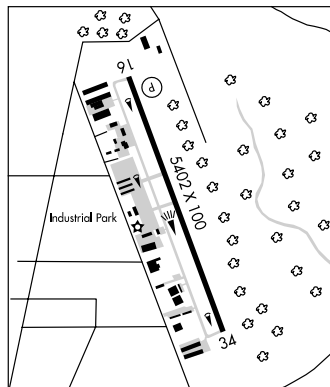
**COMMUNICATIONS:** CTAF/UNICOM 122.7

Ⓡ **POTOMAC APP/DEP CON** 134.7 **POTOMAC CLNC DEL** 125.4

**RADIO AIDS TO NAVIGATION:** NOTAM FILE RIC.**RICHMOND (H) VORTAC** 114.1 RIC Chan 88 N37°30.14'

W77°19.22' 345° 13.6 NM to fld. 159/09W.

**ILS/DME** 109.7 I-OFD Chan 34 Rwy 16. LOC only. LOC unmonitored when arpt unattended.

**ROANOKE RGNL/WOODRUM FIELD** (ROA) 3 NW UTC-5(-4DT)**CINCINNATI**

N37°19.53' W79°58.53'

H-10H, 12H, L-26J

1175 B S4 FUEL 100LL, JET A OX 1, 2, TPA-1975(800) Class I, ARFF Index B NOTAM FILE ROA

RWY 06-24: H6800X150 (ASPH-GRVD) S-150, D-200, ST-175, DT-310 HIRL

RWY 06: REIL. MALSR. VASI(V4L)—GA 3.0° TCH 58'.

RWY 24: REIL. Thld displcd 790'.

RWY 15-33: H5810X150 (ASPH-GRVD) S-150, D-200, ST-175, DT-310 HIRL 0.4% up NW

RWY 33: MALSR. PAPI (P4L)—GA 3.0° TCH 63'. Tower.

**RUNWAY DECLARED DISTANCE INFORMATION**

RWY 06: TORA-6800 TODA-6800 ASDA-6800 LDA-6800

RWY 24: TORA-6800 TODA-6800 ASDA-6800 LDA-6010

RWY 15: TORA-5810 TODA-5810 ASDA-5810 LDA-5810

RWY 33: TORA-5810 TODA-5810 ASDA-5810 LDA-5810

**ARRESTING GEAR/SYSTEM**

RWY 33: EMAS 299'X169'

**AIRPORT REMARKS:** Attended continuously. Large flocks of birds in/ov arpt. Take off Rwy 33 and landings Rwy 15 not authorized at night nor during IFR conditions due to terrain. Transient pilots ctc FBO UNICOM freq 122.95 for acft parking and escort.

**WEATHER DATA SOURCES:** ASOS (540) 265-0680. LLWAS.**COMMUNICATIONS:** ATIS 134.95 UNICOM 122.95**ROANOKE RCO** 122.6 122.2 122.1R 109.4T (LEESBURG RADIO)

Ⓡ **ROANOKE APP/DEP CON** 126.9 (Rwy 15-33 151°-359°, Rwy 06 075°-234°) 118.15 (Rwy 15-33 360°-150°, Rwy 06 235°-074°)

**TOWER** 118.3 **GND CON** 121.9 **CLNC DEL** 119.7**AIRSPACE:** CLASS C svc continuous ctc APP CON**RADIO AIDS TO NAVIGATION:** NOTAM FILE ROA.

(L) **VORTAC** 109.4 ROA Chan 31 N37°20.61' W80°04.23' 107° 4.7 NM to fld. 3060/04W. DME unusable 270°-005° beyond 20 NM below 6000'.

**WOODRUM (T) VORW** 114.9 ODR N37°19.45' W79°58.74' at fld.**VINTON NDB (MHW)** 277 VIT N37°12.24' W79°52.90' 334° 8.6 NM to fld. NDB unusable beyond 10 NM.**ILS** 109.7 I-ROA Rwy 33. CLASS IB.

**LDA/DME** 111.1 I-SZK Chan 48 Rwy 06. LDA located 1202' inboard of Rwy 06 thld and 1100' right of rwy centerline, offset angle 14° 41'. GS aimed parallel to localizer course. GS unusable MM inbound and blo 1540'. ILS unusable 1.4 DME (JOKNI) inbound.

**RONALD REAGAN WASHINGTON NATL** (See DISTRICT OF COLUMBIA, WASHINGTON)

**SALUDA****HUMMEL FLD** (W75) 6 E UTC-5(-4DT) N37°36.15' W76°26.80'

30 B S4 FUEL 100LL NOTAM FILE DCA

**RWY 01-19:** H2270X45 (ASPH) S-12.5 MIRL 0.3% up S**RWY 01:** APAP(PNIL). Thld dsplcd 135'. Road.**RWY 19:** APAP(PNIR). Tree.

**AIRPORT REMARKS:** Attended 1300-2100Z±. Unattended Thanksgiving and Christmas day. Drainage swales full length of rwy on both sides. Use of exit in front of Hummel Aviation advised. Birds and deer on and in/ov of arpt during winter. Acft hold short 75 ft of existing NSTD hold position bars. Departing Rwy 01-19 climb to 500 ft before any turn out; arriving acft use wide pattern to avoid populated areas E and W of arpt. Rwy 01 has NSTD thld lgts, has second set of green lgts. Rwy 01 has NSTD dsplcd thld markings. Rwy 19 has NSTD markings. No thld bar. Previous markings visible certain lggt conditions. ACTIVATE MIRL Rwy 01-19-CTAF.

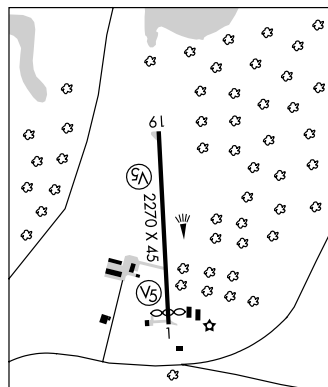
**COMMUNICATIONS:** CTAF/UNICOM 123.0① **NORFOLK APP/DEP CON** 126.05**RADIO AIDS TO NAVIGATION:** NOTAM FILE RDU.**HARCUM (L) VORTAC** 108.8 HCM Chan 25 N37°26.92'

W76°42.68' 061° 15.6 NM to fld. 8/07W.

**WASHINGTON**

L-34E, 36I

IAP

**SHANNON** (See FREDERICKSBURG)**SHENANDOAH VALLEY RGNL** (See STAUNTON/WAYNESBORO/HARRISONBURG)**SMITH MOUNTAIN LAKE** (See MONETA)**SOUTH BOSTON** N36°40.50' W79°00.87' NOTAM FILE DCA.(L) **VORTAC** 110.4 SBV Chan 41 080° 8.3 NM to William M. Tuck. 530/05W.**RCO** 122.1R 110.4T (LEESBURG RADIO)**WASHINGTON**

H-9C, L-26K, 36G

**SOUTH BOSTON****WILLIAM M TUCK** (W78) 3 E UTC-5(-4DT) N36°42.56' W78°50.90'

420 B S4 FUEL 100LL TPA-1220(800) NOTAM FILE DCA

**RWY 01-19:** H4003X75 (ASPH) S-12.5 MIRL 0.9% up N**RWY 01:** REIL. PAPI(P2L)-GA 30° TCH 52'. Tree.**RWY 19:** REIL. PAPI(P2L)-GA 3.0° TCH 52'. Hill.**RWY 05-23:** 2665X200 (TURF) 0.4% up NE**RWY 05:** Thld dsplcd 200'. Trees.**RWY 23:** Thld dsplcd 400'. Tree.

**AIRPORT REMARKS:** Attended 1300-2230Z±. Terminal open-unattended. Self-fueling with credit card. Deer on and in/ov rws. Rwy 05 outlined with yellow cones. ACTIVATE MIRL Rwy 01-19, REIL Rwy 01 and Rwy 19-CTAF. PAPI Rwy 01 and Rwy 19 opr continuously. Rwy 01 REIL OTS indef.

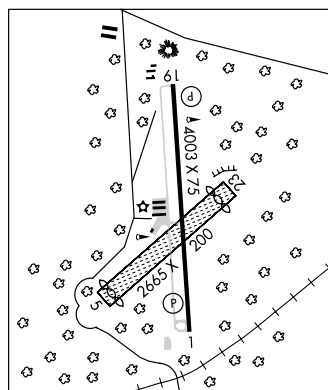
**COMMUNICATIONS:** CTAF/UNICOM 122.8**SOUTH BOSTON RCO** 122.1R 110.4T (LEESBURG RADIO)**WASHINGTON CENTER APP/DEP CON** 124.05**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.**SOUTH BOSTON (L) VORTAC** 110.4 SBV Chan 41 N36°40.50'

W79°00.87' 080° 8.3 NM to fld. 530/05W.

**WASHINGTON**

L-26K, 36G

IAP



**SOUTH HILL****MECKLENBURG—BRUNSWICK RGNL** (AVC) 4 SE UTC-5(-4DT)WASHINGTON  
H-9C, 12H, L-36G  
IAP

N36°41.30' W78°03.27'

441 B FUEL 100LL, JET A TPA-1841(1400) LRA NOTAM FILE AVC

RWY 01-19: H5002X75 (ASPH) S-12.5 MIRL 1.3% up N

RWY 01: REIL. PAPI(P2L)—GA 3.0°. TCH 40'. Trees.

RWY 19: REIL. PAPI(P2L)—GA 3.0°. TCH 40'. Antenna.

AIRPORT REMARKS: Attended daltg Hrs. 24 hr fuel avbl by credit card.

MIRL Rwy 01-19 and REIL Rwy 01 and 19 preset low ints; for higher ints ACTIVATE—CTAF.

WEATHER DATA SOURCES: AWOS-3 127.525 (434) 729-2229.

COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ WASHINGTON CENTER APP/DEP CON 118.75

RADIO AIDS TO NAVIGATION: NOTAM FILE FKN.

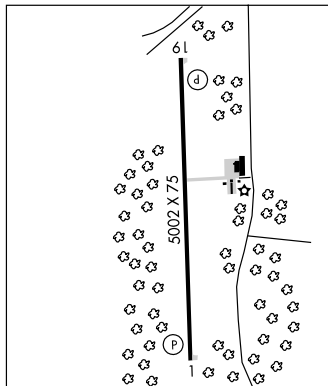
FRANKLIN (L) VORTAC 110.6 FKN Chan 43 N36°42.85'

W77°00.74' 278° 50.3 NM to fld. 90/09W.

JONES NDB (MHW) 373 AEA N36°36.87' W78°03.19' 008° 4.4

NM to fld. NOTAM FILE AVC.

ILS 110.5 I-AVC Rwy 01. Localizer only.

**STAFFORD RGNL** (RMN) 3 SW UTC-5(-4DT) N38°23.89' W77°27.33'WASHINGTON  
H-10H, 12H, L-29E, 34E, 36I, A  
IAP

211 B FUEL 100LL, JET A NOTAM FILE RMN

RWY 15-33: H5000X100 (ASPH-GRVD) S-30, D-70, ST-89 HIRL 0.8% up NW.

RWY 15: REIL. PAPI(P4L)—GA 3.0° TCH 45'. Ground. Rgt tfc.

RWY 33: MAL. PAPI(P4L)—GA 3.0° TCH 45'. Trees.

AIRPORT REMARKS: Attended 1200-0000Z+. Fuel avbl until 0000Z+, after hrs call 540-288-3838 within 12 hrs notice. Deer and flocks of birds on and invof arpt. "Fly Friendly" program in effect, requested that touch and go activity be limited to two (2) every half hr. ACTIVATE HIRL Rwy 15-33—CTAF.

WEATHER DATA SOURCES: AWOS-3 126.325 (540) 657-8283.

COMMUNICATIONS: CTAF/UNICOM 122.725

Ⓡ QUANTICO ARRIVAL 127.05 (Mon and Fri 1300-2200Z+, Tue, Wed and Thu 1300-0200Z+, except Sat, Sun and holidays, other times ctc) Ⓡ POTOMAC APP/DEP CON 124.65

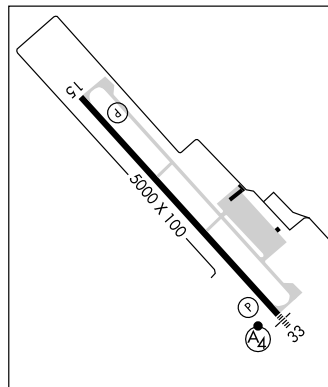
GCO 135.075 (Quantico and Potomac App Con)

RADIO AIDS TO NAVIGATION: NOTAM FILE DCA.

BROOKE (L) VORTAC 114.5 BRV Chan 92 N38°20.18'

W77°21.18' 316° 6.1 NM to fld. 145/09W.

ILS/DME 108.75 I-RMN Chan 24(Y) Rwy 33. LOC unusable byd 20° left of course.



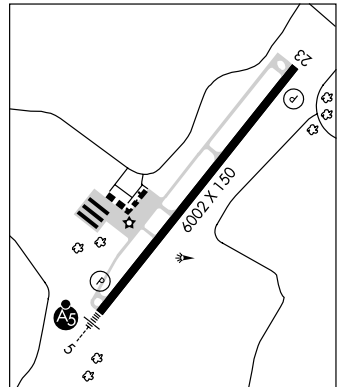


**STAUNTON/WAYNESBORO/HARRISONBURG****SHENANDOAH VALLEY RGNL** (SHD) 10 NE UTC-5(-4DT) N38°15.83' W78°53.79'**WASHINGTON**1201 B S4 FUEL 100LL, JET A OX 3, 4 TPA—See Remarks Class I, ARFF Index B H-10H, 12H, L-26K  
NOTAM FILE SHD**IAP****RWY 05-23:** H6002X150 (ASPH-GRVD) S-75, D-150, ST-175,  
DT-215 HIRL 0.4% up NE**RWY 05:** MALSR. PAPI(P4L)—GA 3.0° TCH 60'. Pole.**RWY 23:** REIL. PAPI(P4L)—GA 3.0° TCH 45'. Road.**AIRPORT REMARKS:** Attended continuously. PPR 12 hrs for air carrier ops with more than 30 passenger seats call 540-234-8304. TPA 2001(800) piston acft, 2701(1500) jet/turbo acft.

ACTIVATE HIRL Rwy 05-23, MALSR Rwy 05, REIL Rwy 23 and taxiway lgts—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 124.925 (540) 234-0110.**COMMUNICATIONS:** CTAF/UNICOM 123.0**MONTEBELLO RCO 122.1R 115.3T (LEESBURG RADIO)****(R) POTOMAC APP/DEP CON 132.85****RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.**MONTEBELLO (L) VOR/DME 115.3** MOL Chan 100 N37°54.03' W79°06.41' 030° 23.9 NM to fld. 3460/05W.**STAUT NDB (LOM) 375** SH N38°12.11' W78°57.44' 045° 4.7 NM to fld.**ILS 109.5** I-SHD Rwy 05. Class IE. LOM STAUT NDB.

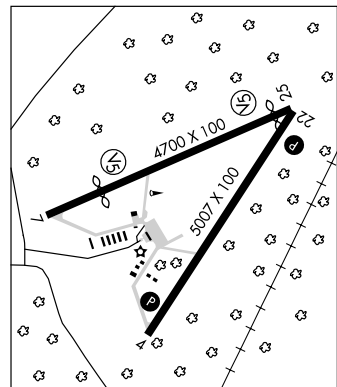
Backcourse unusable. Autopilot coupled apchs not applicable blo 1494'.

**STAUT** N38°12.11' W78°57.44' NOTAM FILE SHD.**NDB (LOM) 375** SH 045° 4.2 NM to Shenandoah Valley Rgnl.**SUFFOLK EXECUTIVE** (SFQ) 3 SW UTC-5(-4DT) N36°40.94' W76°36.11'**WASHINGTON**

72 B S2 FUEL 100LL, JET A, MOGAS NOTAM FILE SFQ

**H-10I, 12H, L-35D, 36H****RWY 04-22:** H5007X100 (ASPH) S-30, D-60, DT-60 HIRL**IAP****RWY 04:** REIL. PAPI(P4L)—GA 3.0° TCH 38'. Trees. Rgt tfc.**RWY 22:** REIL. PAPI(P4L)—GA 3.0° TCH 40'. Trees.**RWY 07-25:** H4700X100 (ASPH) S-30, D-50, DT-85 MIRL**RWY 07:** APAP(PNIL). Thld dspcd 950'. Tree.**RWY 25:** APAP(PNIR). Thld dspcd 300'. Trees. Rgt tfc.**AIRPORT REMARKS:** Attended Apr-May 1300-2300Z±, except Sun clsd at 2200Z±, Jun-Oct 1300-0000Z±, except Sun clsd at 2200Z±, Nov-Mar 1300-2200Z±. Parachute Jumping. Deer on and invof arpt. Rwy 07-25 relocated 300 ft on east end. ACTIVATE MIRL Rwy 07-25; HIRL Rwy 04-22; PAPI Rwy 04 and 22; REIL Rwy 04 and 22—CTAF.**WEATHER DATA SOURCES:** AWOS-3 119.375 (757) 934-3942**COMMUNICATIONS:** CTAF/UNICOM 122.7**(R) NORFOLK APP/DEP CON 127.9** GCO 135.075 (NORFOLK CLNC)**RADIO AIDS TO NAVIGATION:** NOTAM FILE FKN.**FRANKLIN (L) VORTAC 110.6** FKN Chan 43 N36°42.85'

W77°00.74' 104° 19.9 NM to fld. 90/09W.

**WALEY NDB (MHW/LOM) 249** RK N36°35.96' W76°38.95' 035° 5.5 NM to fld. NOTAM FILE DCA.**ILS 111.5** I-RKH Rwy 04. Loc only.**SUZZE** N36°55.21' W81°14.60' NOTAM FILE MKJ.**CINCINNATI****NDB (MHW/LOM) 335** MK 260° 5.4 NM to Mountain Empire. Unmonitored when arpt unattended.**L-26I**

**TANGIER ISLAND** (TGI) 4 W UTC-5(-4DT) N37°49.51' W75°59.87'

5 B TPA-See Remarks NOTAM FILE DCA

RWY 02-20: H2950X75 (ASPH) S-12.5

RWY 02: Pole. Rgt tfc.

RWY 20: Thld dsplcd 99'. Road.

**AIRPORT REMARKS:** Attended Apr-Dec Wed-Mon 1300-2130Z+. Arpt CLOSED SS-SR daily. Be alert Restricted Area 1 mile west of arpt, hi-speed acft drop bombs and fire live ammunition in area. PAEW adjacent to all rwys, twys and ramps. Rwy 02-20 uneven pavement; bumps and cracks. TPA-605(600) light acft, 1505(1500) heavy acft. Rotating bcn ops on req (emerg only through arpt manager-CTAF or phone 757-891-2496). Ldg fee.

**COMMUNICATIONS:** CTAF/UNICOM 122.8

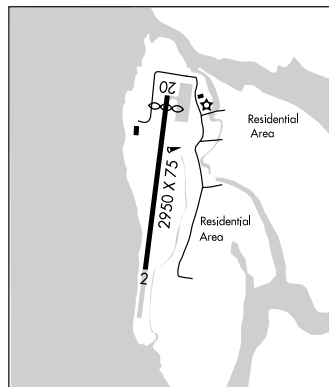
CAPE CHARLES RCO 122.1R 112.2T (LEESBURG RADIO)

Ⓡ PATUXENT APP/DEP CON 121.0 (Mon-Fri 1200-0400Z+, Sat-Sun 1300-2300Z+, clsd holidays)

Ⓡ WASHINGTON CENTER APP/DEP CON 133.9 (Mon-Fri 0400-1200Z+, Sat-Sun 2300-1300Z+)

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

CAPE CHARLES (L) VORTAC 112.2 CCV Chan 59 N37°20.85' W75°59.86' 010° 28.6 NM to fld. 10/10W.



WASHINGTON  
L-34E, 36I  
IAP

**TAPPAHANNOCK-ESSEX CO** (XSA) 5 S UTC-5(-4DT) N37°51.58' W076°53.65'

135 B FUEL 100LL NOTAM FILE DCA

RWY 10-28: H4300X75 (ASPH) MIRL

RWY 10: REIL. PAPI(2PL)-GA 3.0° TCH 40'

RWY 28: REIL. PAPI(2PL)-GA 3.0° TCH 40'.

**AIRPORT REMARKS:** Attended 1300-2200Z+. ACTIVATE MIRL Rwy 10-28 and PAPI Rwy 10 and Rwy 28 and rotating bcn-CTAF.

**WEATHER DATA SOURCES:** AWOS-3 125.775 (804) 445-8724.

**COMMUNICATIONS:** CTAF/UNICOM 122.8

Ⓡ POTOMAC APP/DEP CON 126.4

**RADIO AIDS TO NAVIGATION:** NOTAM FILE RIC.

RICHMOND (H) VORTAC 114.1 RIC Chan 088 N37°30.14' W077°19.22' 052° 29.5 NM to fld. 159/9W.

WASHINGTON  
L-34E, 36I  
IAP

**TAZEWELL CO** (See RICHLANDS)

**TECH** N37°12.52' W80°24.21' NOTAM FILE BCB.

NDB (MHW) 368 TEC at Virginia Tech/Montgomery Executive.

CINCINNATI  
L-26J

**TURNER FLD** (See QUANTICO MCAF)

**TWIN CO** (See GALAX/HILLSVILLE)

**VINTON** N37°12.24' W79°52.90' NOTAM FILE ROA.

NDB (MHW) 277 VIT 334° 8.6 NM to Roanoke Rgnl/Woodrum Field.

NDB unusable beyond 10 NM.

CINCINNATI  
L-26J

**VIRGINIA HIGHLANDS** (See ABINGDON)

**VIRGINIA TECH/MONTGOMERY EXECUTIVE** (See BLACKSBURG)

**WAKEFIELD MUNI** (AKQ) 2 NW UTC-5(-4DT) N36°59.23' W77°00.07'

WASHINGTON

113 B FUEL 100LL NOTAM FILE AKQ

L-36H

RWY 02-20: H4337X75 (ASPH) S-12.5 MIRL

IAP

RWY 02: APAP(PNIL). GA 3.0° TCH 17'. Thld dsplcd 298'. Trees.

RWY 20: APAP(PNIL)—GA 3.0° TCH 17'. Thld dsplcd 470'. Trees.

**AIRPORT REMARKS:** Attended irregularly. For fuel after hours call 757-899-6066. Apron pavement cracked and in poor condition.

**WEATHER DATA SOURCES:** ASOS 128.325 (757) 899-2300.

**COMMUNICATIONS:** CTAF/UNICOM 122.8

FRANKLIN RCO 122.1R 110.6T (LEESBURG RADIO)

® NORFOLK APP/DEP CON 127.9

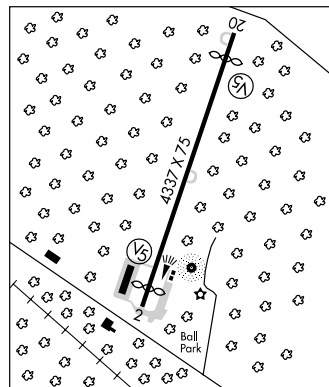
**RADIO AIDS TO NAVIGATION:** NOTAM FILE FKN.

FRANKLIN (L) VORTAC 110.6 FKN Chan 43 N36°42.85'

W77°00.74' 011° 16.4 NM to fld. 90/09W.

NDB (MHW) 274 AKQ N36°58.99' W77°00.07' at fld. NOTAM

FILE AKQ. Unmonitored. Unusable byd 10 NM.



**WALEY** N36°35.96' W76°38.95' NOTAM FILE DCA.

WASHINGTON

NDB (MHW/LOM) 249 RK 035° 5.5 NM to Suffolk Executive.

L-35C, 36H

**WALLOPS FLIGHT FACILITY** (WAL)(KWAL) NASA 5 S UTC-5(-4DT) N37°56.41' W75°27.98'

WASHINGTON

40 B TPA-1040 (1000) NOTAM FILE DCA

H-101, 121, L-361

RWY 04-22: H8749X150 (PEM) HIRL

IAP, AD

RWY 04: REIL. PAPI(P4L)-GA 3.0°

RWY 22: REIL. PAPI(P4L)-GA 3.0°

RWY 10-28: H8005X200 (ASPH) HIRL.

RWY 10: REIL. PAPI(P4L)-GA 3.0°

RWY 28: REIL. PAPI(P4L)-GA 3.0°

RWY 17-35: H4808X150 (ASPH) HIRL

RWY 17: REIL. PAPI(P4L)-GA 3.0°

RWY 35: REIL. PAPI(P4L)-GA 3.0°

**ARRESTING GEAR SYSTEM**

RWY 04 HOOK BAK -13(B) (1850)

HOOK BAK-13(B) (1500) RWY 22

**MILITARY SERVICE:** LGT ACTIVATE rwy lgts and rotating bcn—CTAF.

JASU 3(A/M32A-86) 1 (AM32A-60A)

FUEL J5.

Restricted to U.S. government acft on official business only. **FLUID SP PRESAIR**

**MILITARY REMARKS:** RSTD Official business only. PPR 757-824-1688. **CAUTION** Roadways cross Rwy 17-35. High seagull bird strike potential. Extensive research test development in progress. Trees right of Rwy 22 thld.

Numerous radar facilities at arpt with possible radio freq hazard to ordnance. Rwy 04 HOOK BAK-13 and Rwy 22 HOOK BAK-13 OTS indef.

**WEATHER DATA SOURCES:** ASOS 119.175 (757) 824-0820

**COMMUNICATIONS:** CTAF 126.5

PATUXENT APP/DEP CON 127.95 (Mon-Fri 1200-0400Z†, Sat-Sun 1300-2300Z†, clsd holidays)

WASHINGTON CENTER APP/DEP CON 132.55 (Mon-Fri 0400-1200Z†, Sat-Sun 2300-1300Z†)

TOWER 126.5 Mon-Fri 1200-2200Z† except Federal holidays. **CLNC DEL** 121.7 **INFO SVC** 126.5 (2230-1200Z†)

**AIRSPACE:** CLASS D Mon-Fri 1200-2200Z† except Federal holidays other times Class E.

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

SNOW HILL (L) VORTAC 112.4 SWL Chan 71 N38°03.40' W75°27.84' 189° 7.0 NM to fld. 40/8W.

**WARRENTON—FAUQUIER** (HWY) 12 SE UTC-5(-4DT) N38°35.18' W77°42.64'

WASHINGTON

336 B S4 FUEL 100LL, JET A NOTAM FILE DCA

H-10H, 12H, L-29E, 34E, 36I, A

RWY 15-33: H5000X100 (ASPH-GRVD) S-15, D-70 HIRL 0.5% up SE IAP

RWY 15: REIL. PAPI(P4L)—GA 3.0° TCH 53'. Tree.

RWY 33: REIL. PAPI(P4L)—GA 3.0° TCH 40'.

**AIRPORT REMARKS:** Attended 1300Z±—dark. Ultralight activity on and in/ov arpt. Aerobatic activity (3 boxes avbl). Aerobatic demo area within 1.5 NM radius of arpt 3500 ft and blo; 1500-0300Z±.

ACTIVATE HIRL Rwy 15-33—CTAF.

WEATHER DATA SOURCES: ASOS 120.350 (540) 788-4078.

COMMUNICATIONS: CTAF/UNICOM 122.7

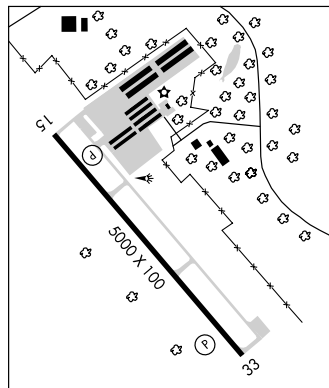
① POTOMAC APP/DEP CON 124.65

GCO 135.075 (POTOMAC CLNC)

RADIO AIDS TO NAVIGATION: NOTAM FILE DCA.

CASANOVA (H) VORTAC 116.3 CSN Chan 110 N38°38.47'

W77°51.93' 120° 8.0 NM to fld. 439/06W.

**WASHINGTON—DULLES INTL** (See DISTRICT OF COLUMBIA, WASHINGTON)**WAYNESBORO****EAGLE'S NEST** (W13) 3 W UTC-5(-4DT) N38°04.62' W78°56.65'

WASHINGTON

1437 B S4 FUEL 100LL NOTAM FILE DCA

RWY 06-24: H2009X50 (ASPH) MIRL (NSTD)

RWY 06: Tree.

RWY 24: Tree.

**AIRPORT REMARKS:** Attended 1300-2230Z±. Parachute Jumping. Deer on and in/ov arpt. Glider activity on and in/ov arpt. Acft parked adjacent to rwy. ACTIVATE MIRL Rwy 06-24—CTAF.

COMMUNICATIONS: CTAF/UNICOM 123.05

**WEIRWOOD****CAMPBELL FLD** (9VG) 1 W UTC-5(-4DT) N37°27.51' W075°52.73'

WASHINGTON

40 NOTAM FILE DCA

RWY 03-31: 3000X100 (TURF)

RWY 03: P-line.

RWY 14-32: 1455X140 (TURF)

**AIRPORT REMARKS:** Attended Mar-Nov dalgth hours. Be alert: 60' P-lines located 300' southwest off the AER 03.

COMMUNICATIONS: CTAF 122.8

**WEST POINT**

**MIDDLE PENINSULA RGNL** (FYJ) 2 SE UTC-5(-4DT) N37°31.28' W76°45.77'

WASHINGTON

20 B FUEL 100LL, JET A TPA—See Remarks NOTAM FILE FYJ

H-10H, 12H, L-34E, 36H

RWY 10-28: H5000X75 (ASPH) S-30, D-50, DT-85 MIRL

IAP

RWY 10: Trees. RWY 28: Trees.

**AIRPORT REMARKS:** Attended 1300-2200Z†. Full and self-serve fuel avbl. Parachute Jumping weekends only. Deer on and invof arpt. TPA—820(800) light acft, 1520(1500) heavy acft. ACTIVATE MIRL Rwy 10-28—CTAF.

**WEATHER DATA SOURCES:** AWOS-3 132.825 (804) 785-2307.

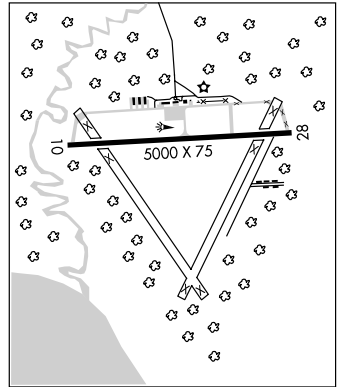
**COMMUNICATIONS:** CTAF/UNICOM 123.0

HARCUM RCO 122.1R 108.8T (LEESBURG RADIO)

® POTOMAC APP/DEP CON 126.4

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

HARCUM (L) VORTAC 108.8 HCM Chan 25 N37°26.92' W76°42.68' 338° 5 NM to fld. 8/07W.



**WHINE** N36°44.02' W81°56.94' NOTAM FILE VJI.

CINCINNATI

NDB (MHW/LOM) 236 VJ 241° 4.9 NM to Virginia Highlands. Unmonitored when arpt unattended.

L-26I

Unusable beyond 15 NM.

**WHITMAN STRIP** (See MANASSAS)

**WILLIAM M. TUCK** (See SOUTH BOSTON)

**WILLIAMSBURG-JAMESTOWN** (JGG) 3 SW UTC-5(-4DT) N37°14.35' W76°42.97'

WASHINGTON

49 B S4 FUEL 100LL, JET A TPA—849(800) NOTAM FILE JGG

L-34E, 36H

RWY 13-31: H3204X60 (ASPH) S-12.5 MIRL(NSTD) 0.8% up NW

IAP

RWY 13: REIL. APAP(PNIL). Trees. Rgt tfc.

RWY 31: REIL. APAP(PNIL). Trees.

**AIRPORT REMARKS:** Attended 1200Z†—dark. Arpt unattended Christmas Day—attended by req. Deer on and invof arpt. PAEW adjacent to Rwy 13-31. Rwy 31 dep turn left heading 270° to avoid school 3500 ft off rwy end. Noise abatement procedures in effect, ctc arpt manager 757-229-9256. Rwy 13-31 NSTD MIRL, non FAA approved L-800 series. Twy to Rwy 31, east of ramp, pavement and markings poor. Rwy 13 approach path alignment panels need repair. ACTIVATE MIRL Rwy 13-31, REIL and APAP Rws 13 and 31—CTAF. Ldg fee for commercial and charter acft.

**WEATHER DATA SOURCES:** AWOS-3 120.625 (757) 220-8810.

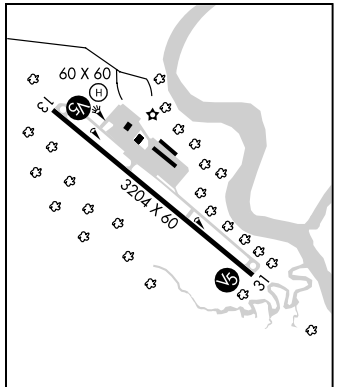
**COMMUNICATIONS:** CTAF/UNICOM 122.8

® NORFOLK APP/DEP CON 119.45

GCO 135.075 (NORFOLK CLNC)

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

HARCUM (L) VORTAC 108.8 HCM Chan 25 N37°26.92' W76°42.68' 188° 12.6 NM to fld. 8/07W.



• • • • •  
HELIPAD H1: H60X60 (CONC)

**HELIPORT REMARKS:** Helipad CLOSED ctc 122.8 for ldg instructions. Helipad H1 perimeter lgts. ACTIVATE MIRL Rwy 13-31, perimeter lgts Helipad H1, REIL and APAP Rws 13 and 31—CTAF.

**WINCHESTER RGNL** (OKV) 3 SE UTC-5(-4DT) N39°08.61' W78°08.67'  
 726 B S4 FUEL 100LL, JET A TPA-See Remarks LRA NOTAM FILE OKV  
 RWY 14-32: H5500X100 (ASPH-GRVD) S-45, D-60 MIRL 0.5% up NW

**WASHINGTON**  
 H-10H, 121, L-29D, A  
 IAP

RWY 14: REIL. PAPI(P2L)—GA 3.0° TCH 45'. Tree.  
 RWY 32: MALSR. PAPI(P2L)—GA 3.0° TCH 45'. Tree.

**AIRPORT REMARKS:** Attended 1200-0000Z. Deer on and in/ov arpt.  
 Taxi on pavement only. Medical Flight: irregular departure pat.  
 ACTIVATE MIRL Rwy 14-32, REIL Rwy 14 and MALSR Rwy 32—CTAF. TPA 2706 (1980) turbo prop and jet acft, 1706 (980) other acft. Flight Notification Service (ADCUS) available. ADCUS avbl 24 hours minimum advance notice required call 804-661-3660 Mon-Fri, after hours and weekends call 703-661-3632.

**WEATHER DATA SOURCES:** AWOS-3 124.85 (540) 662-6970.

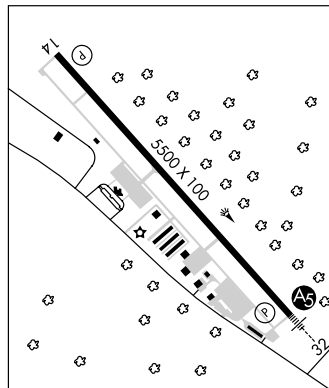
**COMMUNICATIONS:** CTAF/UNICOM 122.7

® POTOMAC APP/DEP CON 120.45 CLNC DEL 126.15

**RADIO AIDS TO NAVIGATION:** NOTAM FILE MRB.

MARTINSBURG (L) VORTAC 112.1 MRB Chan 58 N39°23.13'  
 W77°50.90' 231° 20 NM to fld. 600/07W.

ILS/DME 109.55 I-TZX Chan 32Y Rwy 32. CLASS IB.  
 Unmonitored when arpt unattended.



## WISE

**LONESOME PINE** (LNP) 3 NE UTC-5(-4DT) N36°59.25' W82°31.80'

**CINCINNATI**  
 H-9B, 12G, L-26H  
 IAP

2684 B FUEL 100LL, JET A NOTAM FILE LNP  
 RWY 06-24: H5280X100 (ASPH-GRVD) S-42, D-55, DT-100 MIRL 0.3% up NE

RWY 06: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Tree.

RWY 24: REIL. ODALS (NSTD). PAPI(P2R)—GA 3.0° TCH 40'. Trees.

**AIRPORT REMARKS:** Attended Apr-Oct Mon-Sat 1300-0000Z, Sun irregularly, Nov-Mar Mon-Sat 1300-2230Z, Sun irregularly. Rwy 06-24—three inch gradual dip starting 2000 ft from thld Rwy 24 continuing for 300 ft. Rwy 24 NSTD ODALS, 5 lgt configuration. ACTIVATE MIRL Rwy 06-24, ODALS Rwy 24 and REIL Rwy 06 and Rwy 24—CTAF.

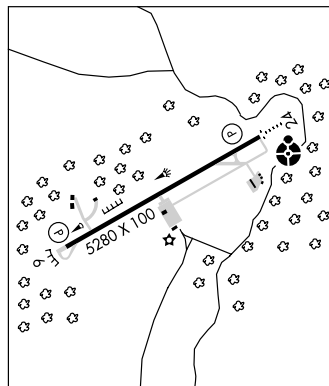
**WEATHER DATA SOURCES:** AWOS-3 118.6 (276) 328-3727.

**COMMUNICATIONS:** CTAF/UNICOM 123.0

® INDIANAPOLIS CENTER APP/DEP CON 126.57

**RADIO AIDS TO NAVIGATION:** NOTAM FILE DCA.

GLADE SPRING (L) VOR/DME 110.2 GZG Chan 39 N36°49.51'  
 W82°04.74' 296° 23.8 NM to fld. 4200/02W. HIWAS.



**WOODRUM** N37°19.45' W79°58.74' NOTAM FILE ROA.

**CINCINNATI**  
 L-26J

(T) VORW 114.9 ODR at Roanoke Rgnl/Woodrum Field.

VOR unusable 035°-110° byd 10 NM blo 6500', 035°-110° byd 10 NM blo 4,200', 035°-050° byd 20 NM blo 7000', 290°-360° byd 15 NM all altitudes.

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### 2009 U.S. & CANADIAN MILITARY AERIAL AIRCRAFT/PARACHUTE DEMONSTRATIONS

During CY 2009, the U.S. and Canadian Military Aerial Demonstration Teams (Thunderbirds, Blue Angels, Snowbirds, and Golden Knights) will be performing on the dates and locations listed below.

Pilots should expect Temporary Flight Restrictions (TFR) in accordance with 14 CFR Section 91.145, Management of aircraft operations in the vicinity of aerial demonstrations and major sporting events. The dimensions and effective times of the TFRs may vary based upon the specific aerial demonstration event and will be issued via the U.S. NOTAM system. Pilots are strongly encouraged to check FDC NOTAMs to verify they have the most current information regarding these airspace restrictions.

The currently scheduled 2009 aerial demonstration locations, subject to change without notice, are:

DATE:		USAF Thunderbirds	USN Blue Angels	Canadian Snowbirds	USA Golden Knights
October	24-25		Fort Worth, TX		Fort Worth, TX
	24-25				Pinehurst, NC
	31		Houston, TX		
November	1		Houston, TX		
	7-8	Homestead AFB, FL	Jacksonville Beach, FL		
	13-14		NAS Pensacola, FL		
	14-15	Nellis AFB, NV			

Note: Dates and locations are scheduled "show dates" only and do not reflect arrival or practice date TFR periods that may precede the specific aerial demonstration events listed above. Again, pilots are strongly encouraged to check FDC NOTAMs to verify they have the most current information regarding any airspace restrictions.



# Washington DC SFRA Special Terms & Procedures

## ***Procedures for Traffic Pattern Work:***

**Towered Airport:** Request pattern work from tower; squawk 1234, remain in two-way communication with tower.

**Non-Towered Airport:** File DC SFRA flight plan; obtain and squawk discrete transponder code, communicate pattern position via published CTAF, and have ability to monitor VHF guard on 121.5 or UHF guard on 243.0

## ***ATC Terms Specific to the DC SFRA:***

**Security services:** Identification, communications and security tracking provided by an ATC facility in support of DOD, or other security elements. **NOTE:** *Security services do not include basic radar services or any other ATC services.*

**Transponder observed:** Used to inform a pilot that the aircraft's assigned beacon code and position has been observed. This transmission does *not* imply ATC services. It conveys only that the transponder reply has been observed and its position correlated for movement through security airspace.

**Remain on the code until you land:** Used when Potomac hands an inbound VFR flight off to the tower or authorizes change to advisory frequency for non-towered airports. It reminds pilots to remain on the assigned discrete transponder code until after landing. **NEVER squawk 1200 inside the DC SFRA.**

## ***Emergency Procedures:***

**Transponder failure:** An aircraft unable to transmit the ATC-assigned transponder code must contact ATC and comply with all instructions. If unable to contact ATC, the aircraft must exit the DC SFRA by the most direct lateral route.

**Intercepts:** Review interception procedures in the AIM. If you are intercepted, follow all instructions given by the intercepting aircraft. Monitor 121.5, provide call sign / position, and squawk 7700 unless otherwise directed.

## **Potomac TRACON Telephone Numbers**

Area Name	Nearest major airport)	Telephone
Shenandoah	Dulles (IAD)	1-866-709-4993 1-540-349-4097
Mount Vernon	Reagan National (DCA) Andrews AFB (ADW)	1-866-599-3874 1-540-349-0493
Chesapeake	Baltimore (BWI)	1-866-429-5882 1-540-349-8478
James River	Richmond (RIC) Charlottesville (CHO)	1-866-640-4124 1-540-349-9697



## Washington DC SFRA Standard Requirements

### ***Requirements to operate to/from, or within the DC SFRA (effective 0001 EST 17 February 2009)***

1. Two-way radio
2. Operating transponder with altitude reporting (Mode C)
3. Flight plan appropriate to intended operation:
  - IFR: IFR flight plan
  - VFR: DC SFRA flight plan for all operations, *except*:
    - Fringe airport egress (*no flight plan required*)
    - Towered airport pattern work (*make request to tower*)
4. Discrete transponder code for all operations, *except*:
  - Leesburg (JYO) ingress (1227) or egress (1226)
  - Fringe airport egress (1205)
  - Towered airport pattern work (1234)
5. VFR speed restriction ( $\leq 180$  KIAS in DC SFRA, &  $\leq 230$  KIAS from 30 NM - 60 NM from DCA VOR/DME unless otherwise authorized.)
6. Communication with ATC for all operations, *except*:
  - Leesburg (JYO) ingress/egress: make CTAF calls
  - Fringe airport egress: monitor guard if able
  - Towered airport pattern work: talk to tower
  - Non-towered airport pattern work:
    - Make CTAF calls & monitor guard if able

**Activate:** A DC SFRA flight plan to enter/exit the DC SFRA under VFR activates when the pilot obtains a discrete transponder code *except*:

- Leesburg (JYO) ingress/egress: with CTAF calls
- Fringe airport egress: when pilot squawks 1205
- Towered airport pattern: with squawk & talk
- Non-towered airport pattern: with CTAF calls

**Closing:** The DC SFRA flight plan closes when the aircraft exits or lands at an airport inside the DC SFRA.

# Washington DC SFRA VFR Outbound Procedures\*

## Step 1: Preflight—File a DC SFRA Flight Plan

- ALWAYS review NOTAMs for current TFR information.
- File DC SFRA flight plan.  
“I would like to file a DC SFRA flight plan for VFR flight from (departure airport) to (appropriate exit gate)”
- If desired, file separate VFR flight plan (search-and-rescue) to be activated after exiting the DC SFRA.

## Step 2: Pre-Takeoff — Activate DC SFRA Flight Plan

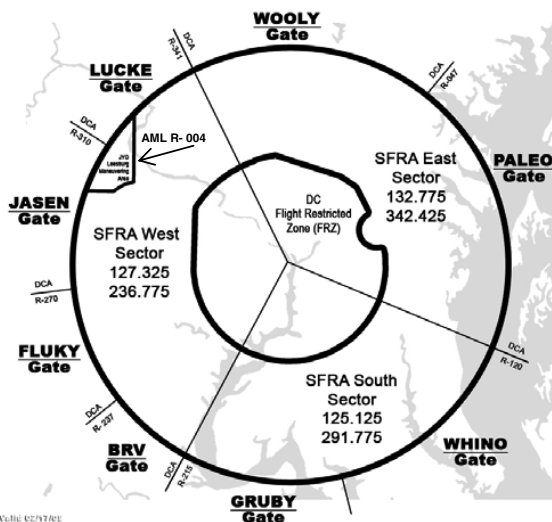
- Call ATC (tower, RCO, phone) for frequency & squawk.  
“Potomac Clearance, (call sign) at Tipton, VFR departure.”
- Set assigned frequency & transponder code.
- Verify that Mode C (ALT) is on.

## Step 3: After Takeoff—Communicate w/ ATC

- Establish radio contact with Potomac TRACON.  
“Potomac Departure, (call sign), off Tipton”
- Monitor assigned frequency
- Remain out of Class B unless explicitly cleared to enter.

## Step 4: Exiting—Close DC SFRA Flight Plan

- Remain on frequency/squawk until ATC authorizes change; DC SFRA flight plan closes upon exiting the DC SFRA.



ALWAYS check NOTAMS!

2  
rev. 02/06/09

# Washington DC SFRA VFR Inbound Procedures\*

## Step 1: Preflight—File a DC SFRA Flight Plan

- ALWAYS review NOTAMs for current TFR information.
- File DC SFRA flight.  
“I would like to file a DC SFRA flight plan for VFR flight from (appropriate entry gate) to (destination airport).”

## Step 2: Before Entry - Activate DC SFRA Flight Plan

- Before entry, call Potomac to request transponder code.  
“Potomac Approach, (call sign), VFR inbound to Gaithersburg.”
- Set assigned code and verify that Mode C (ALT) is on.
- Continue inbound unless otherwise instructed.
- Remain out of Class B unless explicitly cleared to enter.

## Step 3: After Entry—Communicate w/ ATC

- Monitor Potomac TRACON.
- Remain out of Class B airspace unless explicitly cleared to enter.

## Step 4: Arriving—Close DC SFRA Flight Plan

- Change to tower / advisory frequency when so instructed .
- Remain on assigned transponder code until you land.
- DC SFRA flight plan closes upon landing.

## Entry/Exit Filing Gates for DC SFRA Flight Plans

Gate (Freq)	Defining Radials (DCA)		Visual Checkpoints	
<b>WOOLY</b> (132.775)	R-341	R-044	I-270	I-95
<b>PALEO</b> (132.775)	R-045	R-119	I-95	Abeam Chesapeake Beach
<b>WHINO</b> (125.125)	R-120	R-172	Abeam Chesapeake Beach	Northern boundary Wicomico River
<b>GRUBY</b> (125.125)	R-173	R-214	Northern boundary Wicomico River	Western boundary Potomac River / Widewater Beach
<b>BRV</b> (127.325)	R-215	R-236	Western boundary Potomac River / Widewater Beach	West side of Lunga Reservoir
<b>FLUKY</b> (127.325)	R-237	R-269	West side of Lunga Reservoir	VA Route 29
<b>JASEN</b> (127.325)	R-270	R-309	VA Route 29	VA Route 7
<b>LUCKE</b> (127.325)	R-310	R-339	VA Route 7	I-270

\*See page 1 for JYO ingress/egress & fringe airport egress procedures.  
For detailed information, see online DC SFRA course at [www.faasafety.gov](http://www.faasafety.gov)

## EASTON, MARYLAND NOISE ABATEMENT PROCEDURE

When Easton Airport Traffic Control Tower is closed:

Departure RWY 22: Right turn and avoid overflight of Town of Easton. Departure RWY 04: Left turn at end of RWY to parallel HWY 50 until past mobile home park.

No intersection take offs. VFR Arrivals: Report the Miles River bridge, 2.7 miles southwest of the airport at 2000' MSL for sequence to all RWYS. Contact 410-770-8055.

## WEST ATLANTIC ROUTE SYSTEM (WATRS)

Effective immediately, all operators entering New York Center's West Atlantic Route System (WATRS) southbound on ATS Routes L453, L454, L455, L456, L457, L459, L461, and L462, shall file and plan the following routing.

### SOUTHBOUND SOUTHBOUND WATRS PLUS ROUTE STRUCTURE ACCESS FROM NEW YORK METROPOLITAN AREA

All operators entering New York Center's West Atlantic Route System (WATRS) southbound on ATS routes: L453, L454, L455, L456, L457, L459, L461 AND L462 shall flight plan and file the following routes:

ATS ROUTE	WATRS ACCESS ROUTING (SOUTHBOUND ONLY)
For L453;	... LINND-AZEZU-L453 ...
For L453 VIA B24;	... B24-AZEZU-L453 ...
For L454;	... LINND-ROLLE-ATUGI-L454 ...
For L454 VIA B24;	... B24-WEBBB-ROLLE-ATUGI-L454 ...
For L455;	... LINND-RESQU-UMEDA-L455 ...
For L455 VIA B24;	... B24-WEBBB-RESQU-UMEDA-L455 ...
For L456;	... LINND-SQUAD-DARUX-L456 ...
For L456 VIA B24;	... B24-WEBBB-RESQU-DARUX-L456 ...
For L457;	... LINND-RESQU-UMEDA-L457 ...
For L457 VIA B24;	... B24-WEBBB-RESQU-UMEDA-L457 ...
For L459;	... LINND-SQUAD-DARUX-L459 ...
For L459 VIA B24;	... B24-WEBBB-RESQU-DARUX-L459 ...
For L461;	... LINND-KINGG-KINER-L461 ...
For L462;	... LINND-KAYYT-L462 ...
For L462 VIA ACK;	... ACK-J97-LACKS-KAYYT-L462 ...

### EASTBOUND TRANSITION TO NEW YORK OCEANIC CTA/FIR

#### VIA: ORF AR9 ZIBUT

All operators transitioning the New York Center West Atlantic Route System (WATRS) via ZIBUT intersection, en route to the New York Center North Atlantic MNPS airspace, are encouraged to flight plan via:

**ZIBUT** direct **LARGE** direct SLATN or JOBOC or DOVEY

Operators opting to flight plan via any other fix or latitude/longitude coordinates east of ZIBUT intersection shall expect no higher than FL290 and may be rerouted to accommodate WATRS non-radar traffic.

**NOTE—This route may be filed bi-directionally**

**SPECIAL NOTICES**

**NORTHBOUND  
NORTHBOUND WATRS PLUS ROUTE STRUCTURE ACCESS TO  
NEW YORK METROPOLITAN AREA**

All northbound operators exiting New York Center's West Atlantic Route System (WATRS) on routes L453, L454, L455, L456, L457, L459, L461 AND L462 shall flight plan and file the following transition routes to join domestic routing:

<b>ATS ROUTE</b>	<b>WATRS EXIT ROUTING (NORTHBOUND ONLY)</b>
From L453;	. . . AZEZU-BERGH . . .
From L454;	. . . OKONU-L454-BERGH . . .
From L454 TO B24;	. . . OKONU-L454-WEBBB-B24 . . .
From L455;	. . . SAVIK-L455-BERGH . . .
From L455 TO B24;	. . . SAVIK-AZEU-B24 . . .
From L456;	. . . MARIG-BERGH . . .
From L457;	. . . OKONU-L457-BERGH . . .
From L457 TO B24;	. . . OKONU-L457-WEBBB-B24 . . .
From L459;	. . . SAVIK-L459-BERGH . . .
From L459 TO B24;	. . . SAVIK-AZEU-B24 . . .
From L461;	. . . MARIG-BERGH . . .
From L462;	. . . KAYYT-BERGH. . . or KAYYT-LACKS-ACK . . .

**WAKE TURBULENCE FOR INTERSECTION DEPARTURES  
Teterboro Airport (TEB)  
Teterboro, New Jersey**

Teterboro Airport Traffic Control Tower has been granted a waiver to the guidelines that require a 3-minute interval for a small aircraft departing from an intersection behind a preceding departing large aircraft. This waiver authorizes the tower to depart small aircraft from the intersection of RWY 01 and Twy Kilo without requiring a 3-minute interval behind a preceding large aircraft that departs from the end of the runway.

**AEROBATIC PRACTICE AREA  
Roxbury, Connecticut**

Aerobatic practice area will be conducted between the altitudes of 2500 ft and 4500 ft MSL and performed within an approximate 2 mile radius of a point defined from the CARMEL VOR (CMK) as the 052 degree radial/21.9 GPS-DME fix. It is 8 NM NW of the Oxford, CT airport (OXC).

**SEARCH LIGHT DEMONSTRATION  
Baltimore, Maryland**

Downtown, at the Inner Harbor  
Each evening, seven days per week

A vertical search light beam demonstration will be conducted at the Pier V Hotel, at Baltimore Inner Harbor, Baltimore, Maryland, BAL 028/7. Lat N39°17'24", Long W76°36'27". Search light beams are being radiated from the SFC upward. Flashblindness or cockpit illumination may occur at several miles distance. The Leesburg Automated Flight Service Station, 1-703-771-3696 is the FAA coordination facility.

**LASER BASED ATMOSPHERIC RESEARCH  
INTERVALE VILLAGE/MOUNT WASHINGTON VALLEY**

**Bartlett, New Hampshire**

Laser based atmospheric research will be conducted at Intervale Village in the town of Bartlett, New Hampshire. The "Ground Winds" system is a research laser that will be located at Latitude 44°05'56.24" North, Longitude 071°09'31.25" West (NAD83), or BML 195 032. Laser research will be conducted continuously.

The laser light will project at a fixed 45° angle, as measured from the horizon, from the surface to 60,000 feet and beyond. When activated, the light will be at a fixed azimuth. However, the azimuth will periodically change. At 10,000 feet in altitude, the internal cone will only be 10 miles in diameter, but only projecting in one direction (azimuth) at any time. Avoid airborne hazard, this beam may be injurious to Pilots/Aircrews and passengers eyes within 9 nautical miles. The secondary effects of Flash blindness or Cockpit Illumination may occur at great distances. The Bostin Air Route Traffic Control Center, (603) 879-6655, is the FAA coordination facility.

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**Laser Light Activity  
Canobie Lake Water Park, Salem, New Hampshire**

Laser light shows are being conducted at the Canobie Lake Water Park in Salem, NH. Show orientation and laserbeam projections will be directed in all 360° directions. Laser light beams may be injurious to pilot's/passenger's eyes within 3,000 feet laterally of the light source and surface to 1,650 feet AMSL. The secondary effects of flash blindness or cockpit illumination may occur beyond these distances. The laser will be stationed at N42°47'32"/W071°14'44" (LWM 310/7.4 DME). Manchester ATCT 1-603-666-7591 will be the coordination facility.

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**LASER LIGHT DEMONSTRATION  
Atlantic City, New Jersey**

Laser light demonstrations are being conducted at the Atlantic Park, downtown Atlantic City, New Jersey, 0001-0700 UTC, ACY VORTAC 145/8.5. Approximately: 39°21'31"N/74°26'15"W. Laser light beam may be injurious to pilots/passengers eyes within 100 feet above ground, 100 feet AMSL, 900 feet laterally of the light source. The secondary effects of flash blindness or cockpit illumination may occur beyond these distances. The Atlantic City ATCT, 609-641-3940, is the coordination facility.

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**LASER LIGHT DEMONSTRATION  
Darien Lake Theme Park, Darien Center, New York**

Laser light demonstrations are being conducted at the Darien Lake Theme Park, Darien Center, NY. The show orientation and laser beam projection are directed to the southern half of a circle from this site. Buffalo VOR/DME 100R/12NM. (42°56'04"N/78°23'30"W). Laser light beams may be injurious to pilot's/passenger's eyes within 2,800 feet of the light source, 1,600 feet above ground level. The secondary effect of flash blindness or cockpit illumination may occur beyond these distances. The Buffalo ATCT, 716-633-0664 is the FAA coordination facility.

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**LASER LIGHT DEMONSTRATIONS  
DORNEY THEME PARK, DORNEYVILLE, PENNSYLVANIA**

Laser light demonstrations are being conducted at the Dorney Theme Park, northwest of Dorneyville, PA. Show orientation and laserbeam projections directed to the southern quadrant from FJC 210D/10DME (N40°34'47"/W75°32'06"). Laser light beams may be injurious to pilot's/passenger's eyes within 2000 ft laterally of the light source, 500 ft AGL, 1100 ft AMSL. The secondary effects of flash blindness or cockpit illumination may occur beyond these distances. Allentown ATCT, 1-610-264-4539 is the FAA coordination facility.

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**MODEL AIRCRAFT ACTIVITY, HARFORD COUNTY MARYLAND**

Radio controlled model aircraft operating to 800 feet AGL vicinity of N39°37'30" W76°18'35" in Harford County, Maryland.

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**INTERSECTION DEPARTURES DURING PERIOD OF DARKNESS  
GENERAL EDWARD LAWRENCE LOGAN INTERNATIONAL AIRPORT (BOS)  
BOSTON, MASSACHUSETTS**

Boston Logan International Airport Traffic Control Tower has been granted a waiver to the guideline that prohibits the control tower from taxiing an aircraft into "position and hold" at an intersection, between sunset and sunrise.

This waiver will allow the tower to taxi the aircraft into "position and hold" during period of darkness, at the intersections listed below.

**Runway 04R at Taxiway Charlie**

**Runway 22L at Taxiway Charlie**

Aircraft shall not taxi into position and hold under the provisions of this waiver when the subject intersection is not visible from the tower. When the provisions of this waiver are being exercised, the affected runways shall be used for departures only. Intersection departures will continue to be utilized at other locations between sunset and sunrise. However, aircraft cannot be taxied into "position and hold" prior to takeoff clearance.

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**INTERSECTION DEPARTURES DURING PERIOD OF DARKNESS  
NEWARK LIBERTY INTERNATIONAL AIRPORT (EWR)  
NEWARK, NEW JERSEY**

Newark International Airport Traffic Control Tower has been granted a waiver to the guidelines that prohibits the control tower from taxiing an aircraft into "position and hold" at an intersection, between sunset and sunrise.

This waiver allows the tower to taxi aircraft into "position and hold" during period of darkness, at the intersections listed below.

**Runway 22R at Taxiway Whiskey  
Runway 22L at Taxiway Whiskey**

Aircraft shall not taxi into position and hold under the provisions of this waiver when the subject intersection is not visible from the tower. When the provisions of this waiver are being exercised, the affected runways shall be used for departures only. Intersection departures will continue to be utilized at other locations between sunset and sunrise. However, aircraft cannot be taxied into "position and hold" prior to takeoff clearance.

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**INTERSECTION DEPARTURES DURING PERIOD OF DARKNESS  
JOHN F KENNEDY INTERNATIONAL AIRPORT (JFK)  
NEW YORK, NEW YORK**

Kennedy Airport Traffic Control Tower has been granted a waiver to the guidelines that prohibits the control tower from taxiing an aircraft into "position and hold" at an intersection, between sunset and sunrise.

This waiver allows the tower to taxi aircraft into "position and hold" during period of darkness, at the intersections listed below.

**Runway 13R at Taxiway Papa Delta  
Runway 22R at Taxiway Charlie  
Runway 31L at Taxiway Kilo Kilo  
Runway 31R at Taxiway Zulu Alpha**

Aircraft shall not taxi into position and hold under the provisions of this waiver when the subject intersection is not visible from the tower. When the provisions of this waiver are being exercised, the affected runways shall be used for departures only. Intersection departures will continue to be utilized at other locations between sunset and sunrise. However, aircraft cannot be taxied into "position and hold" prior to takeoff clearance.

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**INTERSECTION DEPARTURES DURING PERIOD OF DARKNESS  
PITTSBURGH INTERNATIONAL AIRPORT (PIT)  
PITTSBURGH, PENNSYLVANIA**

Pittsburgh Airport Traffic Control Tower has been granted a waiver to the guidelines that prohibits the control tower from taxiing an aircraft into "position and hold" at an intersection, between sunset and sunrise.

This waiver allows the tower to taxi the aircraft into "position and hold" during periods of darkness, at the intersections listed below.

**Runway 28L at Taxiway Papa**

Aircraft shall not taxi into position and hold under the provisions of this waiver when the subject intersection is not visible from the tower. When the provisions of this waiver are being exercised, the affected runways shall be used for departures only. Intersection departures will continue to be utilized at other locations between sunset and sunrise. However, aircraft cannot be taxied into "position and hold" prior to takeoff clearance.

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**INTERSECTING RUNWAY OPERATIONS  
NEWARK LIBERTY INTERNATIONAL AIRPORT (EWR)  
NEWARK, NEW JERSEY**

Newark Liberty International (EWR) Airport Traffic Control Tower (ATCT) has been authorized to conduct intersecting runway operations to Runway 29 and Runway 04R whereby an aircraft arriving Runway 29 shall be through the intersection of Runway 04R prior to the arriving aircraft on Runway 04R reaching a point no closer than 5,000 feet from the intersection of both runways.

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### **LAND AND HOLD SHORT LIGHTS (for LAHSO) BOSTON-LOGAN AIRPORT, MASSACHUSETTS**

Land and Hold Short lights have been installed on four runways at Boston-Logan Airport (BOS). These in-pavement lighting systems will remain on/flashing whenever LAHSO is expected to be conducted to that particular runway. Flight crews should also expect to see these lights on/flashing even when authorized the full length of the runway for landing, or when utilizing that runway for departure.

Land and Hold Short lights have been installed at the following locations:

**Runway 22L (Short of Runway 27/09)**

**Runway 4L (Short of Runway 33R/15L)**

**Runway 27 (Short of Runway 22L/04R)**

**Runway 15R (Short of Runway 09/27)**

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### **CHARLESTON, WEST VIRGINIA**

Mine blasting approximately 25 NM south and southeast of Charleston, West Virginia as follows:

Mine Blasting HVQ VORTAC 110° 25 DME to 400' AGL

Mine Blasting HVQ VORTAC 189° 26 DME to 300' AGL

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### **CAUTION—FISH SPOTTING ACTIVITY—CHESAPEAKE BAY AND COASTAL WATERS**

Caution is advised for extensive fish spotter aircraft activity between May 1 and December 1 upwards from 1500 feet above the surface over the Chesapeake Bay and adjacent coastal waters. Pilots should be alert for this activity. For further information contact FAA/Norfolk ATCT on 1-757-460-5142.

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### **BOSTON, MASSACHUSETTS**

To avoid the concentration of aircraft arriving and departing Boston, pilots requesting IFR flight at and below altitudes 14,000 feet MSL should file for airways beyond 40 NM from Boston VORTAC between the hours of 0800-2100 local. Traffic to/from Maine and Cape may file V167.

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### **BOURNE, MASSACHUSETTS**

Aircraft operation below 2000 ft and within 3 miles of Pave Paws radar site located in Restricted Area 4101 may experience momentary erratic operation of cockpit instruments or navigational equipment. Pilots are encouraged to submit reports of such occurrences to nearest FAA Air Traffic Facility.

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### **SPECIAL NORTH ATLANTIC, CARIBBEAN AND PACIFIC AREA COMMUNICATIONS**

VHF air-to-air frequencies enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems.

Frequencies have been designated as follows:

North Atlantic area:	123.45 MHz
Caribbean area:	123.45 MHz
Pacific area:	123.45 MHz

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### MILITARY TRAINING ROUTES

The DOD Flight Information Publication AP/1B provides textual and graphic descriptions and operating instructions for all military training routes (IR, VR, SR) and refueling tracks/anchors. Complete and more comprehensive information relative to policy and procedures for IRs and VRs is published in FAA Handbook 7610.4 (Special Military Operations) which is agreed to by the DOD and therefore directive for all military flight operations. The AP/1B is the official source of route data for military users.

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### CIVIL USE OF MILITARY FIELDS:

U.S. Army, Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission. Army Installations, prior permission is required from the Commanding Officer of the installation.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (PRPOC) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (PRPOC), Washington, D.C. 20330.

Use of USAF installations must be specifically justified.

For Navy and Marine Corps installations, prior permission should be requested at least 30 days prior to first intended landing. An Aviation Facility License must be approved and executed by the Navy prior to any landing by civil aircraft.

Forms and further information may be obtained from the nearest U.S. Navy or Marine Corps aviation activity.

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

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### AIRCRAFT LANDING RESTRICTIONS

Landing of aircraft at locations other than public use airports may be a violation of Federal or local law. All land and water areas are owned or controlled by private individuals or organizations, states, cities, local governments, or U.S. Government agencies. Except in emergency, prior permission should be obtained before landing at any location that is not a designated public use airport or seaplane base.

Landing of aircraft is prohibited on lands or waters administered by the National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and on many areas controlled by the U.S. Army Corps of Engineers, unless prior authorization is obtained from the respective agency.

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### CONTINUOUS POWER FACILITIES

In order to insure that a basic ATC system remains in operation despite an areawide or catastrophic commercial power failure, key equipment and certain airports have been designated to provide a network of facilities whose operational capability can be utilized independent of any commercial power supply.

In addition to those facilities comprising the basic ATC system, the following approach and lighting aids have been included in this program for a selected runway.

1. ILS (Localizer, Glide Slope, COMLO, Inner, Middle and Outer Markers)
2. Wind Measuring Capability
3. Approach Light System (ALS) or Short ALS (SALS)
4. Ceiling Measuring Capability
5. Touchdown Zone Lighting (TDZL)
6. Centerline Lighting (CL)
7. Runway Visual Range (RVR)
8. High Intensity Runway Lighting (HIRL)
9. Taxiway Lighting
10. Apron Light (Perimeter Only)

**CONTINUED ON NEXT PAGE**

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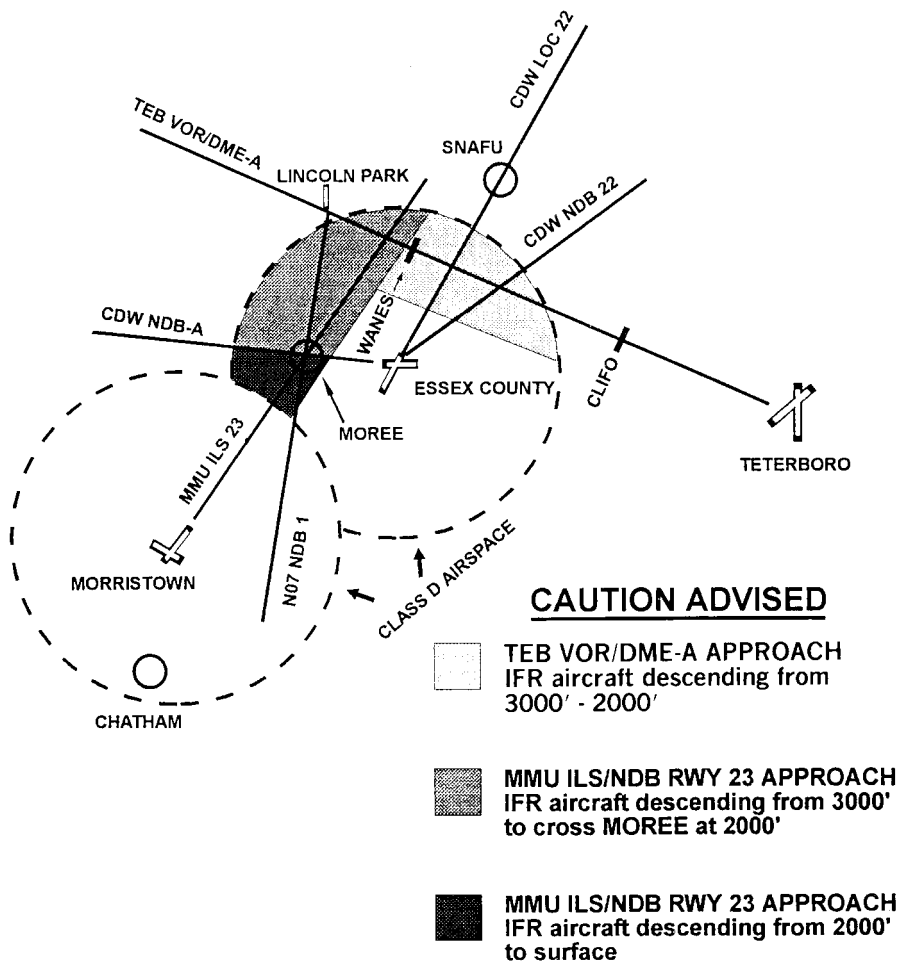
The following have been designated "Continuous Power Airports," and have independent back up capability for the equipment installed.

Airport/Ident	Runway No.	Airport/Ident	Runway No.
Albuquerque, NM (ABQ) .....	08	Milwaukee, WI (MKE) .....	01L
Anchorage, AK (ANC) .....	07R	Minneapolis, MN (MSP) .....	30L
Andrews AFB, MD (ADW) .....	01L	Nashville, TN (BNA) .....	02L
Atlanta, GA (ATL) .....	09R	New Orleans, LA (MSY) .....	10
Baltimore, MD (BWI) .....	10	New York, NY (JFK) .....	04R
Bismarck, ND (BIS) .....	31	New York, NY (LGA) .....	22
Boise, ID (BOI) .....	10R	Newark, NJ (EWR) .....	04R
Boston, MA (BOS) .....	04R	Oklahoma City, OK (OKC) .....	35R
Charlotte, NC (CLT) .....	36L	Omaha, NE (OMA) .....	14R
Chicago, IL (ORD) .....	14R	Ontario, CA (ONT) .....	26L
Cincinnati, OH (CVG) .....	36C	Philadelphia, PA (PHL) .....	09R
Cleveland, OH (CLE) .....	06R	Phoenix, AZ (PHX) .....	08
Dallas/Fort Worth, TX (DFW) .....	17C	Pittsburgh, PA (PIT) .....	10L
Denver, CO (DEN) .....	35R	Reno, NV (RNO) .....	16R
Des Moines, IA (DSM) .....	31	Salt Lake City, UT (SLC) .....	34L
Detroit, MI (DTW) .....	03R	San Antonio, TX (SAT) .....	12R
El Paso, TX (ELP) .....	22	San Diego, CA (SAN) .....	09
Fairbanks, AK (FAI) .....	01L	San Francisco, CA (SFO) .....	28R
Great Falls, MT (GTF) .....	03	San Juan, PR (SJU) .....	08
Honolulu, HI (HNL) .....	08L	Seattle, WA (SEA) .....	16C
Houston, TX (IAH) .....	26L	St. Louis, MO (STL) .....	30R
Indianapolis, IN (IND) .....	05L	Tampa, FL (TPA) .....	36L
Jacksonville, FL (JAX) .....	07	Tulsa, OK (TUL) .....	36R
Kansas City, MO (MCI) .....	19R	Washington, DC (DCA) .....	01
Los Angeles, CA (LAX) .....	24R	Washington, DC (IAD) .....	01R
Memphis, TN (MEM) .....	36L	Wichita, KS (ICT) .....	01L
Miami, FL (MIA) .....	08R		

**NOTE**—The existing CPA runway is listed. Pending and future changes at some locations will require a revised runway designation.

# CALDWELL - TETERBORO - MORRISTOWN

## INSTRUMENT APPROACH - AIRSPACE INTERACTION CHART



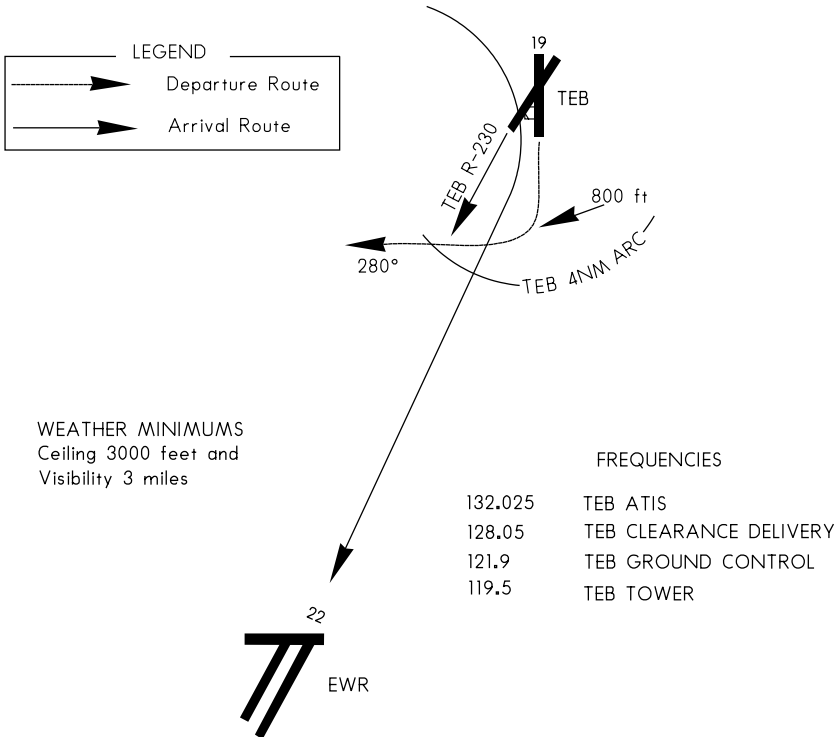
## TERMINAL AREA GRAPHIC NOTICE

(Not to be used for Navigation)

Teterboro (TEB) Airport Runway 19 VFR Departure Procedure with Transition to an IFR Clearance when Newark is landing Runway 22 and Teterboro is departing Rwy 19.

**"DALTON DEPARTURE PROCEDURE"**

PILOTS SHOULD SPECIFICALLY REQUEST THIS PROCEDURE USING THE ABOVE NAME.

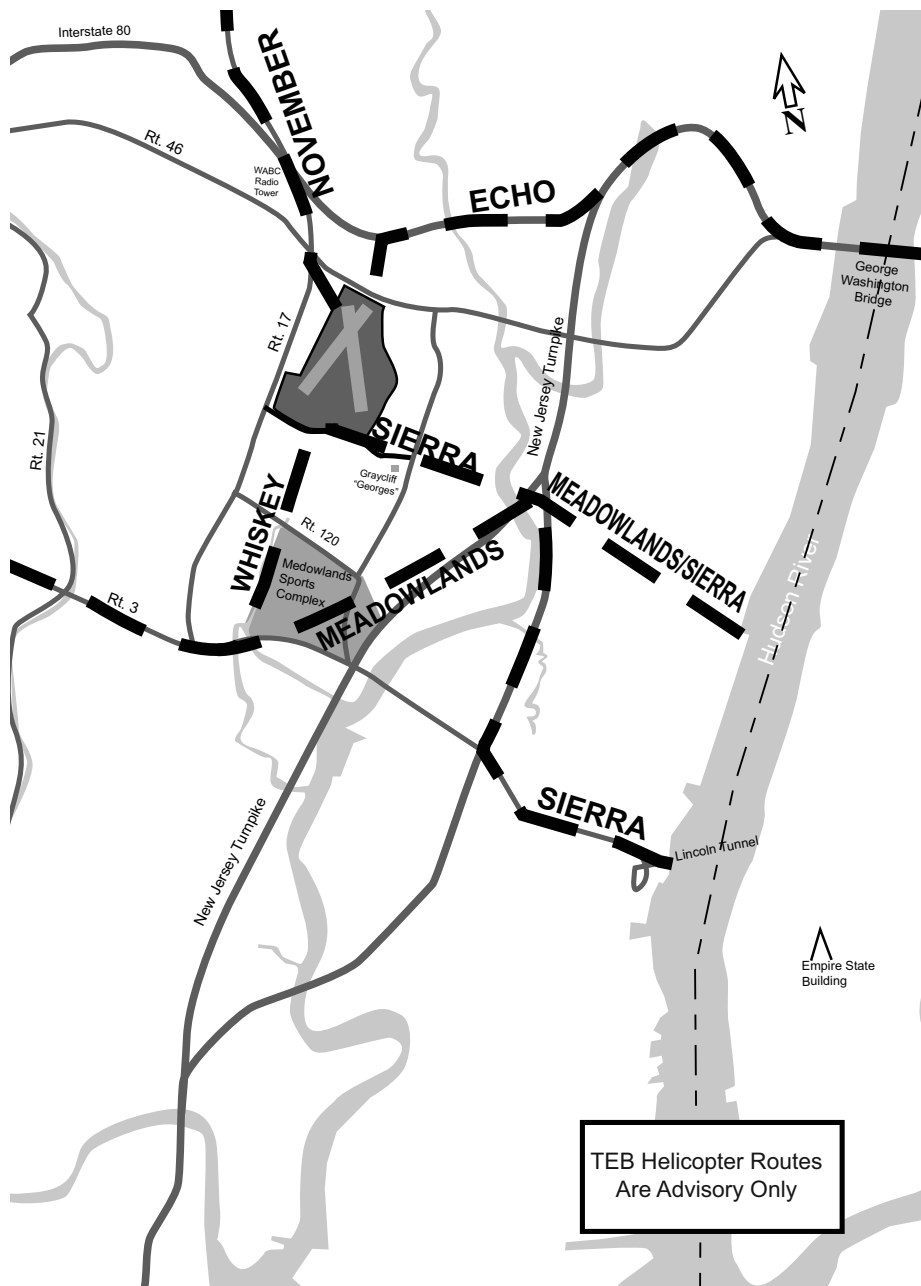


FLY RUNWAY HEADING UNTIL 800 FEET, THEN TURN RIGHT HEADING 280. COMPLETE THE TURN RIGHT WITHIN 4 DME FROM TEB. MAINTAIN VFR AT OR BELOW 1,300 FEET; DO NOT EXCEED 190 KNOTS. IF UNABLE, ADVISE.

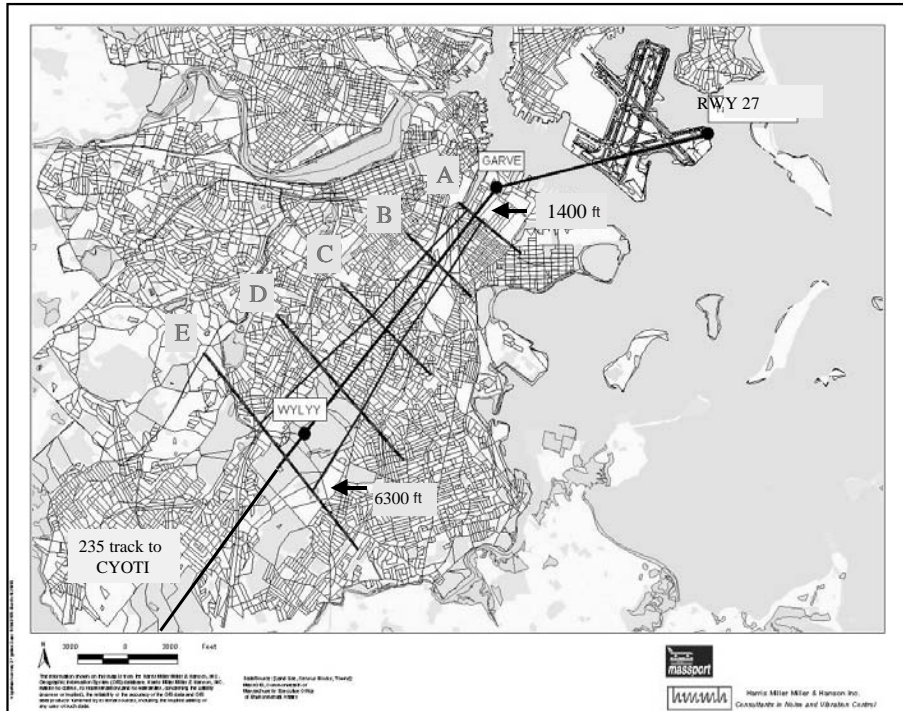
EXPECT A CLIMB CLEARANCE AFTER CROSSING THE TEB R-230. THE CLIMB CLEARANCE CONSTITUTES IFR ACTIVATION AND PILOTS ARE EXPECTED TO RESUME NORMAL AIRSPEED. EXPECT CONTROL INSTRUCTION TO A DEPARTURE FIX AS DESCRIBED IN THE PUBLISHED TEB STANDARD INSTRUMENT DEPARTURE.

**NOTE:** CAUTION WAKE TURBULENCE. NEWARK ARRIVALS DESCENDING OVERHEAD FROM 3000' TO 1800'.

SPECIAL NOTICES  
TETERBORO HELICOPTER ROUTES



# Boston Runway 27 Noise Abatement Departure Procedures



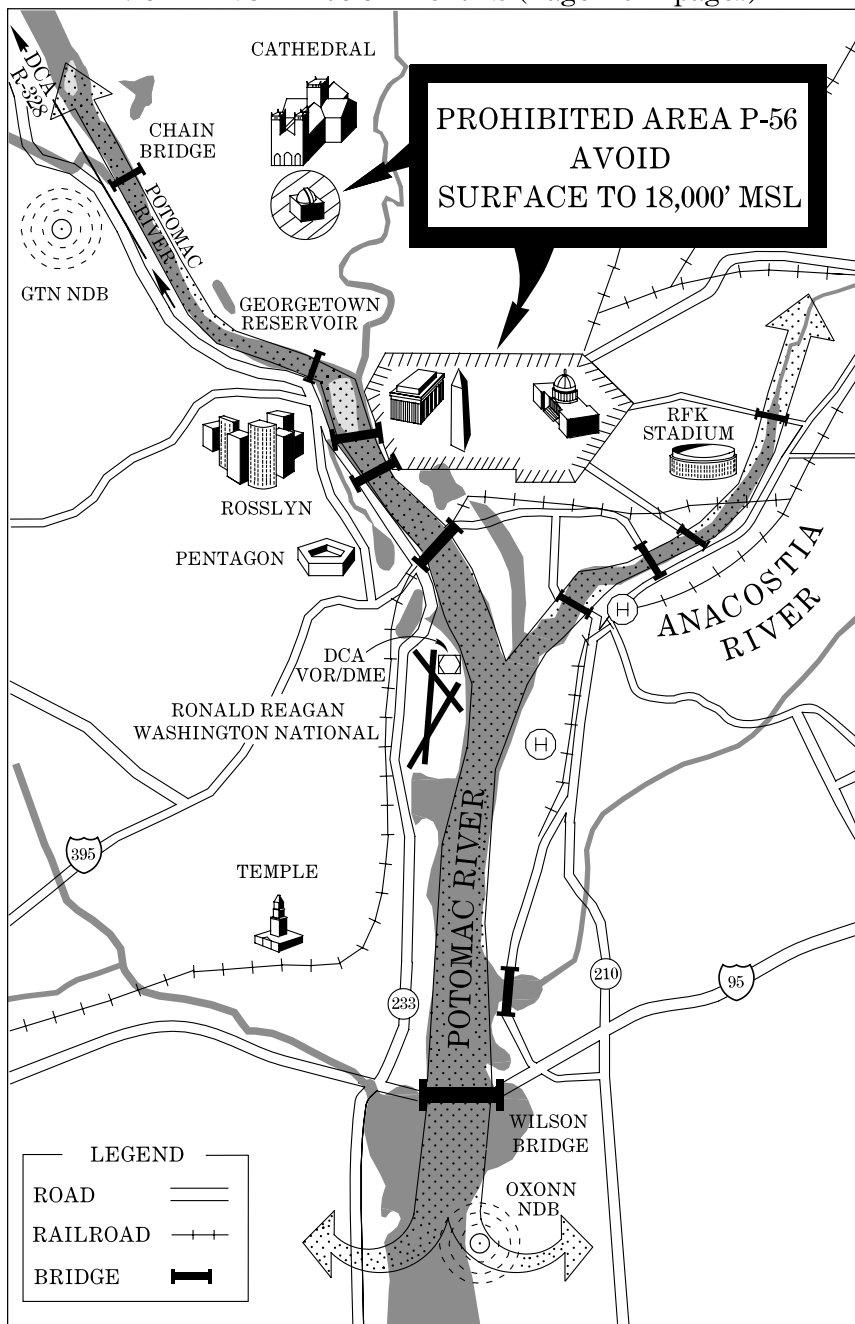
Boston RWY 27, turbojet departure procedures are predicated on avoiding noise sensitive areas. An Environmental Record of Decision mandates a very narrow departure corridor design to minimize noise impacts to local communities. The funnel like corridor begins at GARVE waypoint (WP) and ends at the WYLYY WP as depicted above. Along this corridor Gates are alphabetically identified to monitor and measure conformance. Gate A begins just southwest of GARVE WP on the 235° track through Gate E ending at WYLYY WP. Notice that GATE A is only 1400' wide and gate E is 6300' wide; therefore, whether flying the RWY 27 LOGAN DEPARTURE or the WYLYY DEPARTURE (RNAV), the exact 235° ground track must be flown to comply with the desired noise track. The following information includes *recommended techniques* that may assist pilots in maintaining the 235° track corridor:

## The WYLYY DEPARTURE (RNAV)

Fly the 273° course to the GARVE fly by WP. The flight director should command a left turn approaching GARVE WP to intercept the 235° track to the WYLYY fly over WP. The location of the GARVE WP was computer modeled to capture most aircraft at GATE A. Pilot technique or FMS equipment inaccuracy may cause an overshoot at Gate A. Pilots must insure that applicable navigation equipment alignment procedures, to include a manual runway position update if required, are completed.



RONALD REAGAN WASHINGTON NATIONAL AIRPORT  
NOISE ABATEMENT & PROHIBITED AREA (P-56)  
AVOIDANCE PROCEDURES (Page 1 of 2 pages)



**RONALD REAGAN WASHINGTON NATIONAL AIRPORT  
NOISE ABATEMENT & PROHIBITED AREA (P-56) AVOIDANCE PROCEDURES  
(Page 2 of 2 pages)**

**P-56 BEGINS APPROXIMATELY 1.5 NM NORTH OF THE DEPARTURE END OF RUNWAY  
01-SURFACE TO 18,000' MSL  
REMAIN CLEAR OF P-56 AT ALL TIMES**

**EXPECT THE PUBLISHED RNAV DEPARTURE PROCEDURE OR ATC INSTRUCTIONS FOR  
THE FOLLOWING NON-RNAV PROCEDURES**

**NORTHWEST:** Follow the Potomac River until abeam the Georgetown reservoir or the DCA 4 DME, then join the DCA 328 radial, expect radar vectors at 10 DME. A left turn as soon as practicable, especially with a west wind, is required to maintain a ground track over the Potomac River and **remain clear of P-56**. If unable to maintain visual reference to the Potomac River, join the DCA 328 radial.

**NORTHEAST:** Follow the Anacostia River to 5 DME. A right turn as soon as practicable, especially with a east wind, is required to maintain a ground track over the Anacostia River and **remain clear of P-56**. Expect Radar Vectors at 5 DME. If unable to maintain visual reference to the Anacostia River, then join the DCA 070 radial.

**SOUTH:** Follow the Potomac River to 5 DME, then expect radar vectors. If unable to maintain visual reference to the Potomac river, then join the DCA 185 radial.

**ARRIVAL PROCEDURES**

**LANDING NORTH:** Weather conditions 3000/4 or better, expect the Mount Vernon visual approach. Lower weather conditions, expect the advertised instrument approach.

**LANDING SOUTH:** Weather conditions 3500/3 or better, expect the River Visual Approach. Lower weather conditions, expect the advertised instrument approach.

**NIGHTTIME NOISE LEVELS**

From 2200 to 0700 local time, operation of aircraft type and model which exceed the following noise levels violate Metropolitan Washington Airport Authority Regulation (MWAR) 3.11:

DEPARTURES – 72 dBA as generated on takeoff.

ARRIVALS – 85 dBA as generated on approach, except that aircraft scheduled to arrive before 2200 will be permitted to land if they have received an approach clearance before 2230. Ref. MWAR 3.11 and Advisory Circular 36-3.

**SPECIAL NOTICES**  
**NIAGARA FALLS FLIGHT RESTRICTION AREA**

**Part 93—Special Air Traffic Rules; Subpart E—Flight Restrictions in the  
Vicinity of Niagara Falls, New York**

**§ 93.71 General operating procedures**

(a) Flight restrictions are in effect below 3,500 feet MSL in the airspace above Niagara Falls, New York, west of a line from latitude 43°06'33"N., longitude 78°03'30"W. (the Whirlpool Rapids Bridge) to latitude 43°04'47"N., longitude 79°02'44"W. (the Niagara River Inlet) to latitude 43°04'29"N., longitude 79°03'30"W. (the International Control Dam) to the United States/Canadian Border and thence along the border to the point of origin.

(b) No flight is authorized below 3,500 feet MSL in the area described in paragraph (a) of this section, except for aircraft operations conducted directly to or from an airport/heliport within the area, aircraft operating on an ATC-approved IFR flight plan, aircraft operating the Scenic Falls Route pursuant to approval of Transport Canada, aircraft carrying law enforcement officials, or aircraft carrying properly accredited news representatives for which a flight plan has been filed with Buffalo NY (BUF) Automated Flight Service Station (AFSS).

(c) Check with Transport Canada for flight restrictions in Canadian airspace. Commercial air tour operations approved by Transport Canada will be conducting a north/south orbit of the Niagara Falls area below 3,500 feet MSL over the Niagara River.

(d) The minimum altitude for VFR flight over the Scenic Falls area is 3,500 feet MSL.

(e) Comply with the following procedures when conducting flight over the area described in paragraph (a) of this section:

(1) Fly a clockwise pattern;

(2) Do not proceed north of the Rainbow Bridge;

(3) Prior to joining the pattern, broadcast flight intentions on frequency 122.05 Mhz, giving altitude and position, and monitor the frequency while in the pattern;

(4) Use the Niagara Falls airport altimeter setting. Contact Niagara Falls Airport Traffic Control Tower to obtain the current altimeter setting, to facilitate the exchange of traffic advisories/restrictions, and to reduce the risk of midair collisions between aircraft operating in the vicinity of the Falls. If the Control Tower is closed, use the appropriate Automatic Terminal Information Service (ATIS) Frequency;

(5) Do not exceed 130 knots;

(6) Anticipate heavy congestion of VFR traffic at or above 3,500 feet MSL; and

(7) Use caution to avoid high-speed civil and military aircraft transiting the area to or from Niagara Falls Airport.

(f) These procedures do not relieve pilots from the requirements of Sec. 91.113 of this chapter to see and avoid other aircraft.

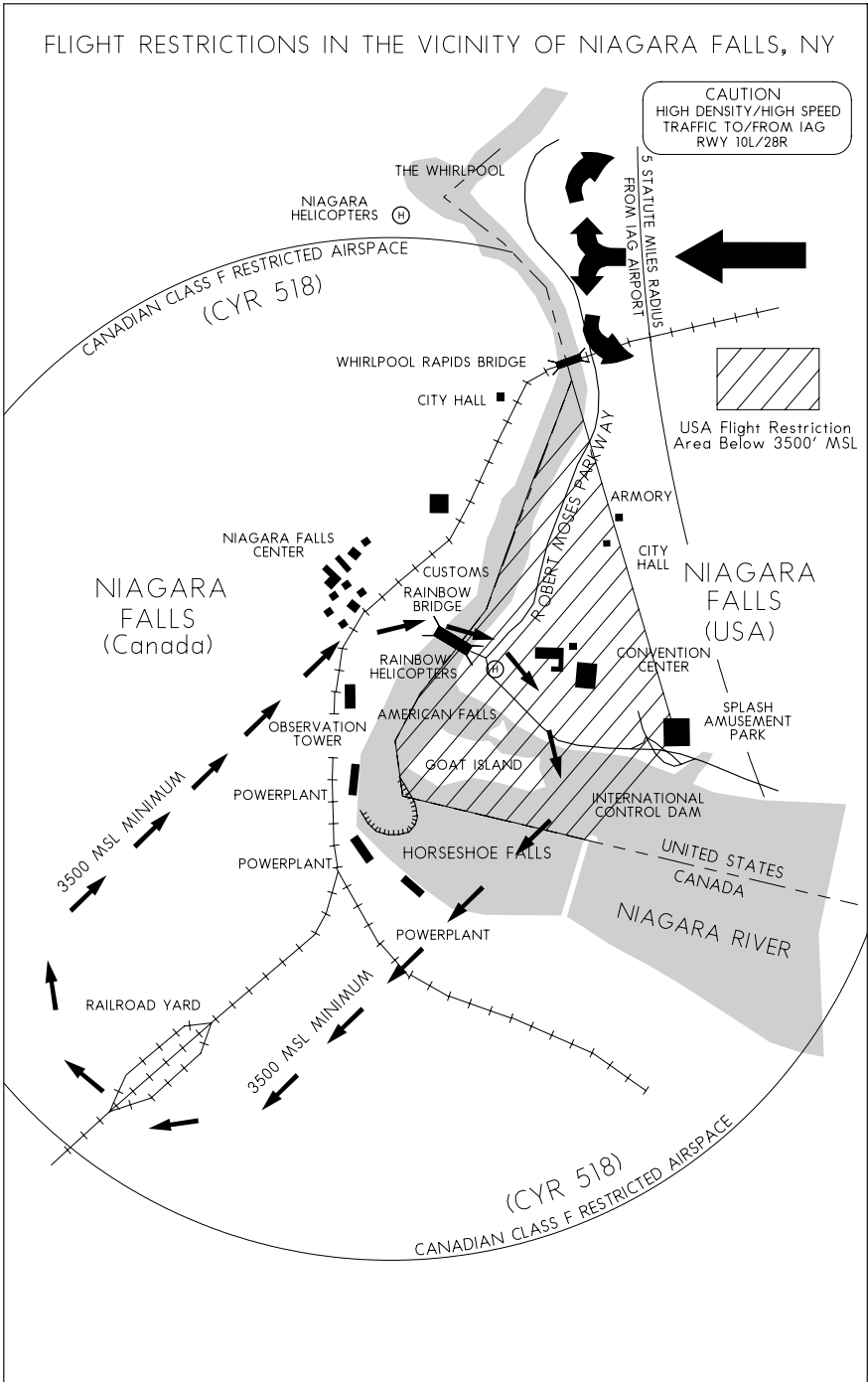
(g) Flight following, to and from the area, is available through Buffalo Approach.

**ADVISORY: AMUSEMENT ATTRACTION—NIAGARA FALLS, NY**

An amusement attraction similar to a moored balloon will be conducted daily, 0700–2400 LCL, April 1 through October 31, 5 miles SW of the Niagara Falls Intl Airport (IAG), approx. BUF305/021, on the American side of Rainbow Bridge, Niagara Falls, NY, at altitudes up to 1050'MSL/500'AGL. For further information contact Buffalo AFSS on 1–716–631–3756.

**CONTINUED ON NEXT PAGE**

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TERMINAL AREA GRAPHIC NOTICE  
(NOT TO BE USED FOR NAVIGATION)

**White Plains, New York**  
**WESTCHESTER COUNTY AIRPORT NOISE ABATEMENT PROCEDURES**

Noise abatement procedures in effect at all times, contact 914-995-4861.

Airport located in noise sensitive area. Noise monitoring and positive aircraft and helicopter event identification in effect at all times.

High Range Noise Event program: Operators that cause noise levels at or above 93 dBA will be contacted.

Voluntary restraint from flying time period is from midnight to 6:30 am local time. Limit use of reverse thrust.

Run-ups: Must receive prior approval from airport operations. No aircraft with certificated maximum gross weight in excess of 120,000 lbs shall land or take off at the airport without prior permission of the Airport Manager.

For all aircraft above 12,500 lbs: Use SIDs and STARs for noise abatement, conditions permitting; utilize Sound Visual Approach to Runway 34; turn final for Runway 16 outside outer marker.

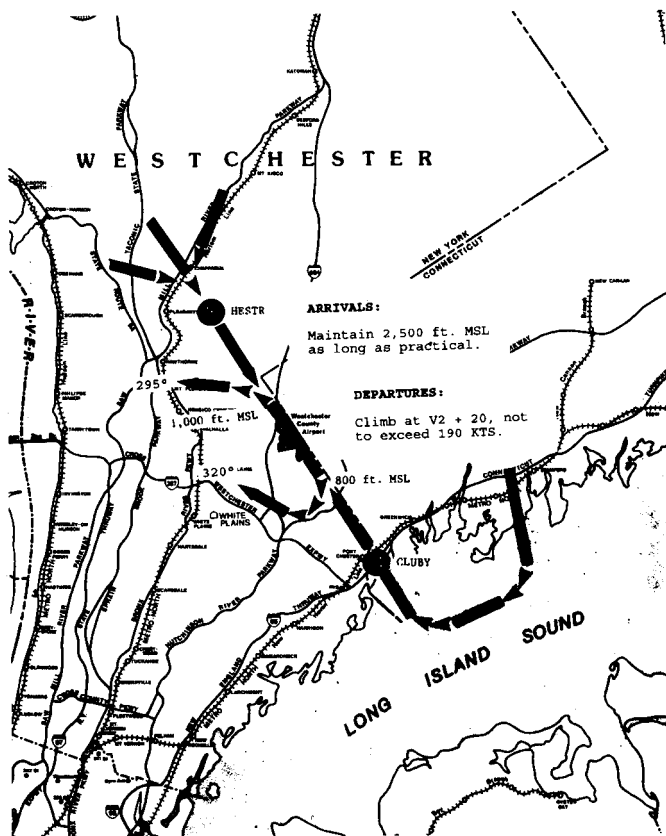
All runways: Utilize NBAA "standard" departure procedures, or AC91-53A "distant" noise abatement departure procedure.

Light aircraft: Runway 34 departures north and eastbound, fly over interstate until reaching 1,500 feet MSL, then on course.

Touch-and-go's: Runway 29 recommended traffic pattern in effect.

Helicopters: Use New York Helicopter Route Chart for noise abatement, fly routes at or above 2,000 ft MSL.

Copies of noise abatement procedures are available.



# TERMINAL AREA GRAPHIC NOTICE (NOT TO BE USED FOR NAVIGATION)

## Nantucket, Massachusetts Nantucket Memorial Airport VFR Noise Abatement Procedures

Noise abatement procedures in effect at all times, contact (508) 325-7531. Additional detailed noise abatement procedures via internet at [www.NantucketAirport.com/noise.htm](http://www.NantucketAirport.com/noise.htm).

### ARRIVALS

**CONTACT** NANTUCKET TOWER (118.3) **15 MILES OUT** FOR LANDING INSTRUCTIONS

**SINGLE ENGINES** - (Pattern speed 130 knots or less) Plan to overfly island high (2000'+ AGL). Expect L/R base landing Runway 30 or Runway 33 when x-winds are under 12 knots. Descend offshore for landing whenever possible.

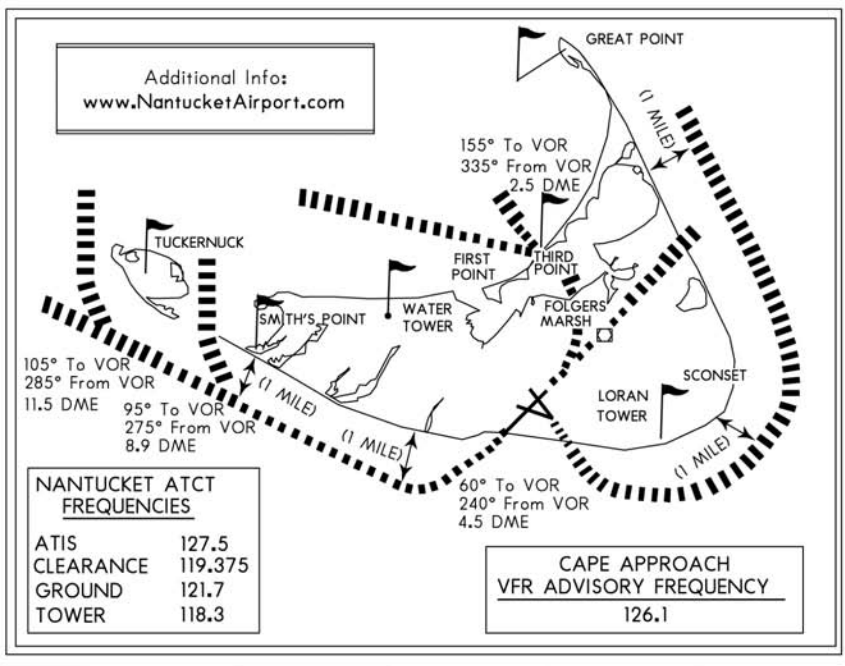
**TWINS** - Remain over water and expect to land on Runway 24 (wind permitting). Contact Tower for landing sequence abeam Great Point. Cross Third Point at 1000' AGL. Follow Folgers Marsh (right base) for landing on Runway 24.

**TURBOPROPS/JETS** - Remain over water and expect straight in approach to Runway 24 (wind permitting). Enter final approach offshore outside Outer Marker.

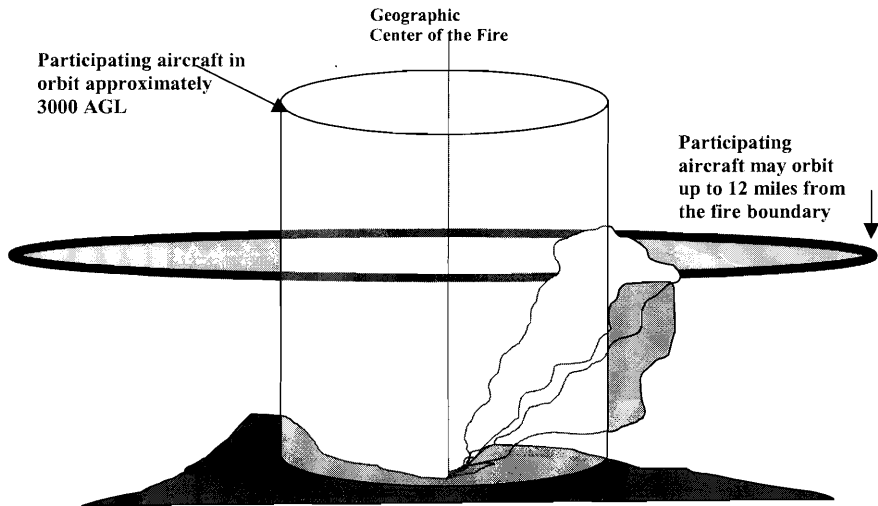
### DEPARTURES

Make maximum use of over water departure routes, maintaining 1 mile offshore and avoid island crossings whenever possible.

## GENERAL AVIATION/AIRLINE CORRIDORS



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**FIREFIGHTING TRAFFIC AREAS**

Pilots are advised to stay clear of Firefighting Traffic Areas. Remain 15 miles from the area of activity. If you must over-fly the area, do so at an altitude of 5000 feet AGL above. However, to remain safe and out of the way of working aircraft, it is best to circumnavigate the area.

The wild-land fire environment can be very complex and involve a large number and variety of aircraft types including fixed and rotary wing aircraft. Some of the aircraft are small single and multi-engine command and control platforms that can be especially difficult to see and may give the appearance that the fire is not staffed. The aircraft participating in firefighting can orbit as far out as 12 miles from the perimeter of the fire. Any intrusion by aircraft not directly involved in the firefighting operation could delay the delivery of much needed retardant or water to ground firefighters and will adversely affect the safety of participating aircraft. Please stay well away from wild-land fires even if you feel that aircraft are not working the fire; they may be en route or unseen.

If you see a fire developing along your route, report it immediately to air traffic control who will advise the US Forest Service. The firefighting community would welcome this information.

The following narratives summarize the FAR Part 93 Special Air Traffic Rules, and Airport Traffic Patterns in effect as prescribed in the rule. This information is advisory in nature and in no way relieves the pilot from compliance with the specific rules set forth in FAR Parts 91 and 93.

Special Airport Traffic Areas prescribed in Part 93 are depicted on Sectional Aeronautical Charts, World Aeronautical Charts, Enroute Low Altitude Charts, and where applicable, on VFR Terminal Area Charts.

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### **OPERATIONS RESERVATIONS FOR HIGH DENSITY TRAFFIC AIRPORTS KENNEDY, LAGUARDIA, AND WASHINGTON REAGAN NATIONAL**

The Federal Aviation Administration (FAA) has designated New York's Kennedy and LaGuardia Airports and Washington Reagan National Airport as High Density Traffic Airports (HDTA), Title 14, Code of Federal Regulations, part 93, subpart K, and has prescribed air traffic rules and requirements for operating aircraft (excluding helicopters) to and from those airports during certain hours.

Reservations are required for operations from 6 a.m. through 11:59 p.m. local time at LaGuardia Airport and Washington Reagan National Airport. Reservations at Kennedy Airport are required from 3 p.m. through 7:59 p.m. local time.

Reservation procedures are detailed in Advisory Circular 93-1, Reservations for Unscheduled Operations at High Density Traffic Airports. A copy of the advisory circular is available on the FAA website at <http://www.faa.gov>. Reservations for unscheduled operations are allocated through the Enhanced Computer Voice Reservation System (e-CVRS) accessible via telephone or the Internet. This system may not be used to make reservations for scheduled air carrier or commuter flights.

The toll-free telephone number for accessing e-CVRS is 1-800-875-9694 and is available for calls originating within the United States, Canada, and the Caribbean. Users outside the toll-free areas may access e-CVRS by calling the toll number of 703-707-0568. The Internet web address for accessing the e-CVRS is <http://www.fly.faa.gov/ecvrs>. If you have any questions about reservation requirements or are experiencing problems with the system, you may telephone the Airport Reservation Office at the Air Traffic Control System Command Center at (703) 904-4452.

Requests for instrument flight rules (IFR) reservations will be accepted beginning 72 hours prior to the proposed time of operation at the high-density airport. For example, a request for an 11 a.m. reservation on a Thursday will be accepted beginning at 11 a.m. on the previous Monday.

IFR reservations must be obtained prior to IFR landing or takeoff at an HDTA during slot controlled hours. An air traffic control (ATC) clearance does not constitute a reservation. A reservation does not constitute permission to operate at an HDTA if additional operational limits or procedures are required by NOTAM and/or regulation.

Aircraft involved in medical emergencies will be handled by ATC without regard to a reservation after obtaining prior approval of the ATC System Command Center on (703) 904-4452. ATC will accommodate declared other emergency situations without regard to slot reservations.

**NOTE:** Visual flight rule (VFR) reservations via ATC for unscheduled operations at LaGuardia are not authorized from 7 a.m. through 8:59 a.m. local time and 4 p.m. through 6:59 p.m. local time, Monday through Friday and Sunday evenings, unless otherwise announced by NOTAM. Both IFR and VFR operations during those time periods must obtain an advance reservation through e-CVRS.

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## FSS TELEPHONE NUMBERS

**Flight Service Station (FSS)** facilities provide flight planning and weather briefing services to pilots. FSS services in the contiguous United States, Hawaii and Puerto Rico, are provided by a network of large hub facilities and smaller remote facilities which are interconnected with the hubs.

**Selected remote FSS** facilities across the contiguous United States have variable part-time operating hours. Because of the interconnectivity between remote and hub facilities, all FSS services, are available continuously using published telephone numbers and radio frequencies.

**Telephone Information Briefing Service (TIBS)** is the FSS service that provides continuous recordings of meteorological and/or aeronautical information including area and/or route briefings, airspace procedures and special announcements. A touch-tone telephone is required to fully utilize this service.

Further information can be found in the Aeronautical Information Manual (AIM).

### NATIONAL FSS TELEPHONE NUMBER

Pilot Weather Briefings ..... 1-800-WX-BRIEF (1-800-992-7433)

### OTHER FSS TELEPHONE NUMBERS (except in Alaska)

TIBS (see description above) ..... 1-800-4TIBS-WX (1-877-484-2799)

Clearance Delivery Only ..... 1-888-766-8267

Lifeguard Flights Only ..... 1-877-LIF-GRD3 (1-877-543-4733)

Flights within DC SFRA & FRZ \* ..... 1-866-225-7410

\* District of Columbia Special Flight Rules Area & Flight Restricted Zone

### DISTRICT OF COLUMBIA, MARYLAND, AND VIRGINIA

Potomac TRACON Clearane Delivery Only:

Chesapeake Area ..... (1-866-429-5882) 540-349-8478

James River Area ..... (1-866-640-4121) 540-349-9696

Mount Vernon Area ..... (1-866-599-3874) 504-349-0493

Shenandoah Area ..... (1-866-709-4993) 540-349-4097

# KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

**TAF** KPIT 091730Z 091818 15005KT 5SM HZ.FEW020 WS010/31022KT  
FM1930 30015G25KT 3SM SHRA OVC015 TEMPO 2022 1/2SM +TSRA  
OVC008CB  
FM0100 27008KT 5SM SHRA BKN020 OVC040 PROB40 0407 1SM -RA BR  
FM1015 18005KT 6SM -SHRA OVC020 BECMG 1315 P6SM NSW SKC

**METAR** KPIT 091955Z COR 22015G25KT 3/4SM R28L/2600FT TSRA OVC010CB  
18/16 A2992 RMK SLP045 T01820159

Forecast	Explanation	Report
<b>TAF</b>	Message type: <u>TAF</u> -routine or <u>TAF AMD</u> -amended forecast, <u>METAR</u> -hourly, <u>SPECI</u> -special or <u>TESTM</u> -non-commissioned ASOS report	<b>METAR</b>
<b>KPIT</b>	ICAO location indicator	<b>KPIT</b>
<b>091730Z</b>	Issuance time: ALL times in UTC " <u>Z</u> ", 2-digit date, 4-digit time	<b>091955Z</b>
<b>091818</b>	Valid period: 2-digit date, 2-digit beginning, 2-digit ending times In U.S. <b>METAR</b> : <u>COR</u> rected ob; or <u>AUTO</u> mated ob for automated report with no human intervention; omitted when observer logs on	<b>COR</b>
<b>15005KT</b>	Wind: 3 digit true-north direction, nearest 10 degrees (or <u>VaRiaBle</u> ); next 2-3 digits for speed and unit, <u>KT</u> (KMH or MPS); as needed, <u>Gust</u> and maximum speed; 00000KT for calm; for <b>METAR</b> , if direction varies 60 degrees or more, <u>Variability</u> appended, e.g. 180V260	<b>22015G25KT</b>
<b>5SM</b>	Prevailing visibility: in U.S., <u>Statute Miles</u> & fractions; above 6 miles in <b>TAF</b> <u>Plus</u> 6SM. (Or, 4-digit minimum visibility in meters and as required, lowest value with direction)	<b>3/4SM</b>
<b>HZ</b>	Runway Visual Range: <u>R</u> ; 2-digit runway designator <u>Left</u> , <u>Center</u> , or <u>Right</u> as needed; <u>"/</u> "; <u>Minus</u> or <u>Plus</u> in U.S., 4-digit value, <u>Feet</u> in U.S., (usually meters elsewhere); 4-digit value <u>Variability</u> 4-digit value (and tendency <u>Down</u> , <u>Up</u> or <u>No change</u> )	<b>R28L/2600FT</b>
<b>FEW020</b>	Significant present, forecast and recent weather: see table (on back) Cloud amount, height and type: <u>SKY</u> <u>Clear</u> 0/8, <u>FEW</u> >0/8-2/8, <u>SCaTtered</u> 3/8-4/8, <u>BroKeN</u> 5/8-7/8, <u>OVerCast</u> 8/8; 3-digit height in hundreds of ft; <u>Towering CU</u> mulus or <u>CumulonimBus</u> in <b>METAR</b> ; in <b>TAF</b> , only <u>CB</u> . <u>Vertical Visibility</u> for obscured sky and height "VV004". More than 1 layer may be reported or forecast. In automated <b>METAR</b> reports only, <u>CLeaR</u> for "clear below 12,000 feet" <u>Tem</u> perature: degrees Celsius; first 2 digits, temperature <u>"/</u> last 2 digits, dew-point temperature; <u>Minus</u> for below zero, e.g., M06 <u>Altimeter</u> setting: indicator and 4 digits; in U.S., <u>A</u> -inches and hundredths; ( <u>Q</u> -hectoPascals, e.g., Q1013)	<b>TSRA</b> <b>OVC010CB</b>  <b>18/16</b> <b>A2992</b>

# KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

Forecast	Explanation	Report
<b>WS010/31022KT</b>	In U.S. <b>TAF</b> , non-convective low-level ( $\leq 2,000$ ft) <u>Wind Shear</u> ; 3-digit height (hundreds of ft); "°"; 3-digit wind direction and 2-3 digit wind speed above the indicated height, and unit, <u>KT</u>	<b>RMK</b> <b>SLP045</b> <b>T01820159</b>
<b>FM1930</b>	In <b>METAR</b> , <u>ReMark</u> indicator & remarks. For example: <u>Sea-Level Pressure</u> in hectoPascals & tenths, as shown: 1004.5 hPa; <u>Temp/dew-point</u> in tenths °C, as shown: temp. 18.2°C, dew-point 15.9°C	
<b>TEMPO 2022</b>	<u>FroM</u> and 2-digit hour and 2-digit minute <b>beginning</b> time: indicates significant change. Each FM starts on new line, indented 5 spaces.	
<b>PROB40 0407</b>	<b>TEMPO</b> rary: changes expected for < 1 hour and in total, < half of 2-digit hour <b>beginning</b> and 2-digit hour <b>ending</b> time period	
<b>BECMG 1315</b>	<b>PROB</b> ability and 2-digit percent (30 or 40): probable condition during 2-digit hour <b>beginning</b> and 2-digit hour <b>ending</b> time period	
	<b>BEC</b> oMing: change expected during 2-digit hour <b>beginning</b> and 2-digit hour <b>ending</b> time period	

Table of Significant Present, Forecast and Recent Weather - Grouped in categories and used in the order listed below; or as needed in TAF, No Significant Weather.

## QUALIFIER

### Intensity or Proximity

- Light "no sign" Moderate + Heavy

VC Vicinity: but not at aerodrome; in U.S. **METAR**, between 5 and 10SM of the point(s) of observation; in U.S. **TAF**, 5 to 10SM from center of runway complex (elsewhere within 8000m)

### Descriptor

MI Shallow	BC Patches	PR Partial	TS Thunderstorm
BL Blowing	SH Showers	DR Drifting	FZ Freezing

## WEATHER PHENOMENA

### Precipitation

DZ Drizzle	RA Rain	SN Snow	SG Snow grains
IC Ice crystals	PL Ice pellets	GR Hail	GS Small hail/snow pellets

UP Unknown precipitation in automated observations

### Obscuration

BR Mist ( $\geq 5/8$ SM)	FG Fog ( $< 5/8$ SM)	FU Smoke	VA Volcanic ash
SA Sand	HZ Haze	PY Spray	DU Widespread dust

### Other

SQ Squall	SS Sandstorm	DS Duststorm	PO Well developed dust/sand whirls
FC Funnel cloud	+FC tornado/waterspout		

- Explanations in parentheses "( )" indicate different worldwide practices.
- Ceiling is not specified; defined as the lowest broken or overcast layer, or the vertical visibility.
- NWS **TAFs** exclude turbulence, icing & temperature forecasts; NWS **METARs** exclude trend fcsts
- Although not used in US, Ceiling And Visibility OK replaces visibility, weather and clouds if: visibility  $\geq 10$  km; no cloud below 5000 ft (1500 m) or below the highest minimum sector altitude, whichever is greater and no CB; and no precipitation, TS, DS, SS, MIFG, DRDU, DRSA or DRSN.

UNITED STATES DEPARTMENT OF COMMERCE

NOAA/PA 96052

National Oceanic and Atmospheric Administration—National Weather Service

# FAA AND NWS

## KEY AIR TRAFFIC FACILITIES

### Air Traffic Control System Command Center

Main Number.....703-904-4400

#### RGNL AIR TRAFFIC DIVISIONS

REGION	TELEPHONE
Alaskan	907-271-5464
Central	816-329-2500
Eastern	718-553-4502
Great Lakes	847-294-7202
New England	781-238-7500
Northwest Mountain	425-227-2500
Southern	404-305-5500
Southwest	817-222-5500
Western Pacific	310-725-6500

#### AIR ROUTE TRAFFIC CONTROL CENTERS (ARTCCs)

ARTCC NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque	817-222-5006	7:30 a.m.-4:00 p.m.	505-856-4300
Anchorage	907-271-5936	7:30 a.m.-4:00 p.m.	907-269-1137
Atlanta	404-305-5180	7:30 a.m.-5:00 p.m.	770-210-7601
Boston	617-238-7001	7:30 a.m.-4:00 p.m.	603-879-6633
Chicago	847-294-8400	8:00 a.m.-4:00 p.m.	630-906-8221
Cleveland	847-294-8400	8:00 a.m.-4:00 p.m.	440-774-0310
Denver	425-227-1389	7:30 a.m.-4:00 p.m.	303-651-4100
Ft. Worth	817-222-5006	7:30 a.m.-4:00 p.m.	817-858-7300
Houston	817-222-5006	7:30 a.m.-4:00 p.m.	281-230-5300
Indianapolis	847-294-8400	8:00 a.m.-4:00 p.m.	317-247-2231
Jacksonville	404-305-5180	8:00 a.m.-4:30 p.m.	904-549-1501
Kansas City	816-329-3000	7:30 a.m.-4:00 p.m.	913-254-8500
Los Angeles	661-265-8200	7:30 a.m.-4:00 p.m.	661-265-8200
Memphis	404-305-5180	7:30 a.m.-4:00 p.m.	901-368-8103
Miami	404-305-5180	7:00 a.m.-3:30 p.m.	305-716-1500
Minneapolis	847-294-8400	8:00 a.m.-4:00 p.m.	651-463-5580
New York	718-995-5426	8:00 a.m.-4:40 p.m.	516-468-1001
Oakland	310-725-3300	6:30 a.m.-3:00 p.m.	510-745-3331
Salt Lake City	425-227-1389	7:30 a.m.-4:00 p.m.	801-320-2500
Seattle	425-227-1389	7:30 a.m.-4:00 p.m.	253-351-3500
Washington	718-995-5426	8:00 a.m.-4:30 p.m.	703-771-3401

#### MAJOR TERMINAL RADAR APPROACH CONTROLS (TRACONS)

TRACON NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Atlanta	404-305-5180	7:00 a.m.-3:30 p.m.	404-669-1200
Chicago	847-294-8400	8:00 a.m.-4:00 p.m.	847-608-5509
Dallas/Ft. Worth	817-222-5006	7:30 a.m.-4:00 p.m.	972-615-2500
Denver	425-227-1389	7:30 a.m.-4:00 p.m.	303-342-1500
Houston	817-222-5006	7:30 a.m.-4:00 p.m.	281-230-8400
New York	718-995-5426	8:00 a.m.-4:30 p.m.	516-683-2901
Northern CA	310-725-3300	7:00 a.m.-3:30 p.m.	916-366-4001
Potomac	718-995-5426	8:00 a.m.-4:30 a.m.	540-349-7500
Southern CA	310-725-3300	7:30 a.m.-4:00 p.m.	858-537-5800

\*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

# KEY AIR TRAFFIC FACILITIES

## DAILY NAS REPORTABLE AIRPORTS

AIRPORT NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque Intl Sunport, NM	817-222-5006	8:00 a.m.-5:00 p.m.	505-842-4366
Andrews AFB, MD	718-995-5426	8:00 a.m.-4:30 p.m.	301-735-2380
Baltimore/Washington Intl Thurgood Marshall, MD	718-995-5426	8:00 a.m.-4:30 p.m.	410-962-3555
Boston Logan Intl, MA	781-238-7001	7:30 a.m.-4:00 p.m.	617-455-3100
Bradley Intl, CT	617-238-7001	7:30 a.m.-4:00 p.m.	203-627-3428
Burbank/Bob Hope, CA	310-725-3300	7:00 a.m.-5:30 p.m.	818-567-4806
Charlotte Douglas Intl, NC	404-305-5180	8:00 a.m.-4:30 p.m.	704-344-6487
Chicago Midway, IL	847-294-8400	8:00 a.m.-4:00 p.m.	773-884-3670
Chicago O'Hare Intl, IL	847-294-8400	8:00 a.m.-4:00 p.m.	773-601-7600
Cleveland Hopkins Intl, OH	847-294-8400	8:00 a.m.-4:00 p.m.	216-898-2020
Covington/Cincinnati, OH	708-294-7401	8:00 a.m.-4:30 p.m.	606-767-1006
Dallas/Ft. Worth Intl, TX	817-222-5006	8:30 a.m.-5:00 p.m.	972-615-2531
Dayton Cox Intl, OH	847-294-8400	7:30 a.m.-4:00 p.m.	937-454-7300
Denver Intl, CO	425-227-1389	7:30 a.m.-4:00 p.m.	303-342-1600
Detroit Metro, MI	847-294-8400	8:00 a.m.-4:00 p.m.	734-955-5000
Fairbanks Intl, AK	907-271-5936	7:30 a.m.-4:00 p.m.	907-474-0050
Fort Lauderdale Intl, FL	404-305-5180	7:00 a.m.-3:30 p.m.	305-356-7932
George Bush Intercontinental/Houston, TX	817-222-5006	7:30 a.m.-4:00 p.m.	713-230-8400
Hartsfield-Jackson Atlanta Intl, GA	404-305-5180	7:00 a.m.-3:30 p.m.	404-669-1200
Honolulu Intl, HI	310-643-3200	7:30 a.m.-4:00 p.m.	808-840-6100
Houston Hobby, TX	817-222-5006	8:00 a.m.-5:00 p.m.	713-847-1400
Indianapolis Intl, IN	847-294-8400	8:00 a.m.-4:00 p.m.	317-484-6600
Kahului/Maui, HI	310-643-3200	7:30 a.m.-4:00 p.m.	808-877-0725
Kansas City Intl, MO	816-329-3000	7:30 a.m.-4:00 p.m.	816-329-2700
Las Vegas McCarran, NV	310-725-3300	7:30 a.m.-4:00 p.m.	702-262-5978
Los Angeles Intl, CA	310-725-3300	7:00 a.m.-3:30 p.m.	310-342-4900
Louis Armstrong New Orleans Intl, LA	817-222-5006	7:00 a.m.-4:30 p.m.	504-471-4300
Memphis Intl, TN	404-305-5180	7:30 a.m.-4:00 p.m.	901-322-3350
Miami Intl, FL	404-305-5180	7:00 a.m.-4:00 p.m.	305-869-5400
Minneapolis/St. Paul, MN	847-294-8400	8:00 a.m.-4:00 p.m.	612-713-4000
Nashville Intl, TN	404-305-5180	7:00 a.m.-3:30 p.m.	615-781-5460
New York Kennedy Intl, NY	718-995-5426	8:00 a.m.-4:30 p.m.	718-656-0335
New York La Guardia, NY	718-995-5426	8:00 a.m.-4:30 p.m.	718-335-5461
Newark Liberty Intl, NJ	718-995-5426	8:00 a.m.-4:30 p.m.	973-645-3103
Norman Y. Mineta San Jose Intl, CA	310-643-3200	7:30 a.m.-4:00 p.m.	408-982-0750
Ontario Intl, CA	310-643-3200	7:30 a.m.-4:00 p.m.	909-983-7518
Orlando Intl, FL	404-305-5180	7:30 a.m.-5:00 p.m.	407-850-7000
Philadelphia Intl, PA	718-995-5426	8:00 a.m.-4:30 p.m.	215-492-4100
Phoenix Sky Harbor Intl, AZ	310-643-3200	7:30 a.m.-4:00 p.m.	602-379-4226
Pittsburgh Intl, PA	718-995-5426	8:00 a.m.-4:30 p.m.	412-269-9237
Portland Intl, OR	425-227-1389	7:30 a.m.-4:00 p.m.	503-493-7500
Raleigh-Durham, NC	404-305-5180	8:00 a.m.-4:30 p.m.	919-840-5544
Ronald Reagan Washington National, DC	718-995-5426	8:00 a.m.-4:30 p.m.	703-413-1535
Salt Lake City, UT	425-227-1389	7:30 a.m.-4:00 p.m.	801-325-9600
San Antonio Intl, TX	817-222-5006	8:00 a.m.-4:30 p.m.	210-805-5507
San Diego Lindbergh Intl, CA	310-725-3300	8:00 a.m.-4:30 p.m.	619-299-0677
San Francisco Intl, CA	310-643-3200	7:00 a.m.-3:30 p.m.	650-876-2883
San Juan Intl, PR	404-305-5180	7:30 a.m.-5:00 p.m.	809-253-8663
Seattle-Tacoma Intl, WA	425-227-1389	7:30 a.m.-4:00 p.m.	206-768-2900
St. Louis Lambert, MO	816-329-3000	7:30 a.m.-4:00 p.m.	314-890-1000
Tampa Intl, FL	404-305-5180	7:30 a.m.-4:00 p.m.	813-371-7700
Ted Stevens Anchorage Intl, AK	907-271-5936	7:30 a.m.-4:00 p.m.	907-271-2700
Teterboro, NJ	718-995-5426	8:00 a.m.-4:30 p.m.	201-288-1889
Washington Dulles Intl, DC	718-995-5426	8:00 a.m.-4:30 p.m.	703-661-6031
West Palm Beach, FL	404-305-5180	8:00 a.m.-4:30 p.m.	407-683-1867
Westchester Co, NY	718-995-5426	8:00 a.m.-4:30 p.m.	914-948-6520

\*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

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Air Route Traffic Control Center frequencies and their remotest transmitter sites are listed below for the coverage of this volume. Bold face type indicates high altitude frequencies, light face type indicates low altitude frequencies. To insure unrestricted IFR operations within the high altitude enroute sectors, the use of 720 channel communications equipment (25 kHz channel spacing) is required.

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**® ATLANTA CENTER**

**Greensboro** – 128.8 **124.425**  
**Tri City** – 132.9 **126.775** **120.725**

**H-6-9-10,**  
**L-18-22-24-25-26-36, A-1**  
**(KZTL)**

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**® BOSTON CENTER**

**Augusta** – **134.95**  
**Barnstable** – 132.9 128.75 **127.825**  
**Berlin** – **135.7** 135.7  
**Bucks Harbor** – **133.45** 133.45  
**Burlington** – **118.825** **120.35** 120.35  
**Calverton** – 124.525  
**Caribou** – 124.75  
**Concord** – 128.325  
**Cummington** – 132.65  
**Gardner** – 134.7 123.75  
**Houlton** – **128.05** 120.25  
**Hyannis** – **133.45** 133.45  
**Islip** – 135.8 132.3  
**Kingston** – 134.3  
**Lake George** – **135.325** **133.625** **128.325** 121.35  
**Lebanon** – 134.7  
**Melrose** – 135.55 133.325 119.25  
**Millinocket** – **128.05**  
**Montpelier** – **135.7** 135.7  
**Portland** – 128.2  
**Rockdale** – 133.25 **126.475**  
**St. Albans** – **128.05** 124.25 120.25  
**Shelton** – 135.075 134.0 128.1 **125.575**  
**Turin** – 135.25 133.25 **123.875** **120.35**  
**Utica** – **124.125**  
**Waterboro** – 128.2 118.55  
**Woodstock** – **135.325** **133.425** 133.425 127.65 124.85 **118.425**.

**H-10-11-12, L-30-31-32-33-34**  
**(KZBW)**

**REMARKS:** The provisions of enroute primary radar not available in the BOSTON ARTCC Watertown, NY area at 12,000' and below, Rockdale/Utica, NY areas at 11,000' and below, Delancey, NY area at 7,000' and below, and in the Syracuse/Georgetown, NY areas at all altitudes.

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**® CLEVELAND CENTER**

**Altoona** – **132.125** 128.45 124.4 121.2  
**Bradford** – 126.725  
**Dubois** – 126.725  
**Dunkirk** – 125.2  
**Holland** – **135.775** **120.625**  
**Moon Township** – 134.475 254.725 **133.075**  
**Morgantown** – 126.95  
**Warren** – **134.125** **132.925** **119.725**  
**Waterford** – 127.07  
**Wayland** – 127.475 124.325

**H-2-5-10-11-12, L-27-28-29-30-31-32, A-2**  
**(KZOB)**

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**® INDIANAPOLIS CENTER – 135.25 132.775 119.95**

**Bluefield** – 126.575  
**Charleston** – **134.225** 127.4 **119.525**  
**Marmet** – **134.225** 127.4

**H-5-9-10-12, L-16-25-26-27-29**  
**(KZID)**

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**® NEW YORK CENTER**

H-10-11-12, L-29-30-32-33-34-36

(KZNY)

Arr-Dep US - 133.7  
 Barnegat - 132.15 132.15  
 Barnstable - 135.8 125.925  
 Big Flat - 133.475 132.2  
 Colts Neck - 118.975  
 Douglaston - 134.375 133.05  
 Elk Mountain - 134.45 132.175 128.5  
 Flint Hill - 124.625 134.6 132.1  
 Huguenot - 132.6  
 Joliet - 133.675 132.5  
 Matawan - 125.325 127.175  
 Millville - 134.325  
 Modena - 135.45  
 Nantucket - 121.125  
 North Mountain - 133.5 128.575 123.625 121.325  
 Philipsburg - 134.8 132.875  
 Sayre - 133.35  
 Ship Bottom - 128.3 133.05  
 Sparta - 133.15  
 Williamsport - 124.9

**® WASHINGTON CENTER**

H-9-10-12, L-24-25-26-29-34-35-36, A-1

(KZDC)

Arr-Dep US - 135.5 133.82 133.12 128.52 127.7 127.42 124.02 123.85 118.82  
 Atlantic City - 133.12  
 Bucks Elbow - 135.4 133.2 133.2 121.675  
 Buena Vista - 134.625 134.4 133.025 127.925  
 Cape Charles - 128.525  
 Cedar Lake - 124.77 124.77  
 Elkins - 128.6  
 Falls Church - 126.875 135.525 133.97 132.775  
 Grantsville - 133.65  
 Green Bay - 133.725 132.025 127.75 118.75  
 Hagerstown - 134.15 134.15  
 Linden - 133.55  
 Lynchburg - 133.575  
 Manteo - 124.725  
 Martinsburg - 132.275  
 Millville - 125.45 125.45  
 Modena - 132.525  
 Patuxent River - 133.9  
 Roanoke - 134.625  
 Sea Isle - 127.7  
 Ship Bottom - 127.025  
 Smyrna - 132.05  
 South Boston - 124.05  
 Whaleyville - 120.75  
 White Sulphur Springs - 120.85

VHF frequencies available at Flight Service Stations and at their remote communication outlets (RCO's) are listed below for the coverage of this volume. Frequencies in bold type are available all altitudes but recommended for use FL180 and above. "T" indicates transmit only and "R" indicates receive only. RCO's available at NAVAIDS are listed after the NAVAID name. RCO's not at NAVAID's are listed by name.

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### ALTOONA AFSS

ALLEGHENY VOR/DME 110.0T 122.1R 122.2 122.4  
 ALTOONA RCO 122.1R 122.2 122.65 123.6  
 ALTOONA VOR 108.8T  
 BRADFORD VOR/DME 116.6T 122.1R 122.2 122.3  
 CLARION VOR/DME 112.9T 122.1R  
 DU BOIS RCO 122.2  
 ELLWOOD CITY VORTAC 115.8T 122.1R  
 ERIE VORTAC 109.4T 122.1R  
 FRANKLIN VOR 109.6T 122.1R  
 INDIAN HEAD VORTAC 108.2T 122.1R  
 JOHNSTOWN VORTAC 113.0T 122.1R 122.65  
 KEATING VORTAC 116.0T 122.1R  
 MONTGOMERY VORTAC 112.0T 122.1R  
 PHILIPSBURG VORTAC 115.5T 122.1R **122.5** 122.6  
 REVLOC VOR/DME 110.6T 122.1R  
 SLATE RUN VORTAC 113.9T 122.1R  
 ST MARYS RCO 121.3  
 ST THOMAS VORTAC 115.0T 122.1R  
 TIDIOUTE VORTAC 117.6T 122.1R  
 TYRONE VORTAC 114.9T 122.1R

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### BANGOR AFSS

AUGUSTA VOR/DME 111.4T 122.1R 122.2 122.6  
 BANGOR RCO 122.2  
 BELFAST RCO 121.975  
 BERLIN RCO 122.35  
 BUCKS HARBOR RCO 122.5  
 CARIBOU RCO **122.3**  
 CLAREMONT RCO 122.4  
 CONCORD RCO 122.2 **122.3**  
 FRYEBURG RCO 122.55  
 GREENVILLE RCO **122.3**  
 HOULTON VOR/DME 116.1T 122.1R 122.2  
 KEENE VORTAC 109.4T 122.1R  
 KENNEBUNK VORTAC 117.1T 122.1R  
 LEBANON VOR/DME 113.7T 122.1R 122.2 122.5  
 MANCHESTER VOR/DME 114.4T 122.1R  
 MILLINOCKET VOR/DME 117.9T 122.1R 123.6  
 PRINCETON VOR/DME 114.3T 122.1R  
 WATERBORO RCO 122.25  
 WHITEFIELD RCO 122.4

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**BRIDGEPORT AFSS**

BOSTON VORTAC 112.7T 122.1R 122.4  
BRIDGEPORT VOR/DME 108.8T 122.1R 122.2  
CHESTER RCO 122.25  
FITCHBURG RCO 118.025  
GARDNER VORTAC 110.6T 122.1R  
GROTON VOR 110.85T 122.1R  
HYANNIS RCO 126.425  
LAWRENCE VOR/DME 112.5T 122.1R  
MADISON VOR/DME 110.4T 122.1R  
MANSFIELD RCO 121.725  
MARTHAS VINEYARD VOR/DME 114.5T 122.1R  
NANTUCKET VOR/DME 116.2T 122.1R  
NEW HAVEN VOR/DME 109.8T 122.1R  
NORWICH VOR/DME 110.0T 122.1R  
PROVIDENCE RCO 122.6  
PUTNAM VOR/DME 117.4T 122.1R  
QUONSET STATE RCO 122.3  
WINDSOR LOCKS RCO 122.3  
WORCESTER RCO 122.2

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**BUFFALO AFSS**

BINGHAMTON VORTAC 112.2T 122.1R  
BUFFALO RCO 122.1R 122.2 122.6  
BUFFALO VOR/DME 116.4T  
DUNKIRK VORTAC 116.2T 122.1R  
ELMIRA RCO 122.2 122.4  
ELMIRA VOR/DME 109.65T  
GENESEO VOR/DME 108.2T 122.1R  
GEORGETOWN VORTAC 117.8T 122.1R  
HANCOCK VOR/DME 116.8T 122.1R  
ITHACA VOR/DME 111.8T 122.1R  
JAMESTOWN VOR/DME 114.7T 122.1R  
ROCHESTER RCO 122.6  
ROCKDALE VOR/DME 112.6T 122.1R  
UTICA VORTAC 111.2T 122.1R 122.2 122.65  
WELLSVILLE VORTAC 111.4T 122.1R

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**BURLINGTON AFSS**

ALBANY VORTAC 115.3T 122.1R 122.2 **122.45**  
BARNES VORTAC 113.0T 122.1R  
BURLINGTON RCO 122.2 122.6  
CHESTER VOR/DME 115.1T 122.1R  
GLENS FALLS VORTAC 110.2T 122.1R 122.2 **122.4**  
MASSENA RCO 122.2  
MONTPELIER RCO 122.2 122.6  
NEWPORT RCO 122.5  
OGDENSBURG RCO **122.4**  
PITTSFIELD RCO **122.05**  
PLATTSBURGH VORTAC 116.9T 122.1R  
RUTLAND RCO 122.3  
SARANAC LAKE VOR/DME 109.2T 122.1R  
SPRINGFIELD RCO 122.5  
WATERTOWN VORTAC 109.8T 122.1R 122.2 **122.3**

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**ELKINS AFSS**

BECKLEY VORTAC 117.7T 122.1R  
 BLUEFIELD VORTAC 110.0T 122.1R 122.2 122.65  
 CHARLESTON VORTAC 117.4T 122.1R 122.2 **122.55**  
 CLARKSBURG VOR/DME 112.6T 122.1R  
 CUMBERLAND RCO 122.35  
 ELKINS VORTAC 122.2 **122.45** 123.6 114.2T 122.1R  
 GRANTSVILLE VOR/DME 112.3T 122.1R  
 HENDERSON VORTAC 115.9T 122.1R  
 HUNTINGTON RCO 122.2 **122.6**  
 IVY KNOB RCO 124.3  
 KESSEL VOR/DME 110.8T 122.1R  
 MARTINSBURG RCO 122.45  
 MORGANTOWN VORTAC 111.6T 122.1R 122.6  
 PARKERSBURG VORTAC 108.6T 122.1R 122.4  
 RAINELLE VOR 116.6T 122.1R  
 WHEELING VOR/DME 118.65 112.2T 122.1R

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**LEESBURG AFSS** 122.0 122.2 122.6

ARMEL VORTAC 113.5T 122.1R  
 BALTIMORE VORTAC 115.1T 122.1R 122.2  
 BROOKE VORTAC 114.5T 122.1R  
 BUCK'S ELBOW MOUNTAIN RCO 122.2 122.65  
 CAPE CHARLES VORTAC 112.2T 122.1R  
 CASANOVA VORTAC 116.3T 122.1R  
 CHARLOTTESVILLE RCO 122.2 122.65  
 DANVILLE VOR 113.1T 122.2  
 FALLS CHURCH RCO 122.2 122.6  
 FLAT ROCK VORTAC 113.3T 122.1R  
 FRANKLIN VORTAC 110.6T 122.1R  
 FREDERICK VOR 109.0T 122.1R  
 GLADE SPRING VOR/DME 110.2T 122.1R  
 GORDONSVILLE VORTAC 115.6T 122.1R  
 HAGERSTOWN VOR 109.8T 122.1R  
 HARCUM VORTAC 108.8T 122.1R  
 HOPEWELL VORTAC 112.0T 122.1R  
 LAWRENCEVILLE VORTAC 112.9T 122.1R  
 LINDEN VORTAC 114.3T 122.1R  
 LYNCHBURG VORTAC 109.2T 122.1R  
 MARTINSBURG VORTAC 112.1T 122.1R  
 MONTEBELLO VOR/DME 115.3T 122.1R  
 NEWPORT NEWS RCO 122.2 122.65  
 NORFOLK VORTAC 116.9T 122.1R  
 NOTTINGHAM VORTAC 113.7T 122.1R  
 PATUXENT VORTAC 117.6T 122.1R  
 PULASKI VORTAC 116.8T 122.1R 122.3  
 RICHMOND VORTAC 114.1T 122.1R 122.2 **122.4**  
 ROANOKE VORTAC 109.4T  
 ROANOKE RGNL/WOODRUM RCO 122.2 122.6 109.4T 122.1R  
 SALISBURY VORTAC 111.2T 122.1R 122.2 122.3  
 SNOW HILL VORTAC 112.4T 122.1R 122.6  
 SOUTH BOSTON VORTAC 110.4T 122.1R  
 WESTMINSTER VOR/DME 117.9T 122.1R

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**MILLVILLE AFSS**

ATLANTIC CITY VORTAC 108.6T 122.55  
BROADWAY RCO 122.35  
CEDAR LAKE VORTAC 115.2T 122.1R  
COLTS NECK RCO 122.3  
COYLE VORTAC 113.4T 122.1R  
DUPONT VORTAC 114.0T 122.1R  
MILLVILLE RCO 122.1R 122.2 **122.65** 123.65  
ROBBINSVILLE VORTAC 113.8T 122.1R 122.45  
SEA ISLE VORTAC 114.8T 122.1R  
SMYRNA VORTAC 111.4T 122.1R  
SOLBERG VOR/DME 112.9T 122.1R  
SPARTA RCO 122.5  
STILLWATER VOR/DME 109.6T 122.1R  
TETERBORO RCO 122.2 **122.65**  
WATERLOO VOR/DME 112.6T 122.1R  
WOODSTOWN VORTAC 112.8T 122.1R

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**NEW YORK IFSS**

HAMPTON VORTAC 113.6T 122.1R 122.6  
HUGUENOT VOR/DME 116.1T 122.1R  
KENNEDY VOR/DME 115.9T 122.1R  
KINGSTON VOR/DME 117.6T 122.1R  
LA GUARDIA VOR/DME 113.1T  
NEW YORK RCO 122.2 122.6  
POUGHKEEPSIE RCO 122.2 122.4

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**WILLIAMSPORT AFSS**

ALLENTOWN VORTAC 117.5T 122.1R  
HARRISBURG VORTAC 112.5T 122.1R 122.2 122.4  
LANCASTER VORTAC 117.3T 122.1R  
MODENA VORTAC 113.2T 122.1R  
NORTH PHILADELPHIA VOR 112.0T 122.2 122.6  
POTTSTOWN VORTAC 116.5T  
RAVINE VORTAC 114.6T 122.1R  
SELINGSGROVE VORTAC 110.4T 122.1R  
STONYFORK VOR/DME 108.6T 122.1R  
WILKES-BARRE RCO 122.2 122.6  
WILLIAMSPORT RCO 122.2 122.65  
WILLIAMSPORT VOR/DME 114.4T 122.1R  
YARDLEY VOR/DME 108.2T

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## FLIGHT STANDARDS DISTRICT OFFICES (FSDO)

Below is a list of FSDO's in the area of coverage of this directory. These offices serve the aviation industry and the general public on matters relating to certification and operation of general aviation aircraft. Address letters to Manager, Flight Standards District Office-Federal Aviation Administration.

Flight Standards personnel in these offices are responsible for serving the aviation industry and the general public on all matters relating to the certification and operation of general aviation aircraft.

### CONNECTICUT

1st Floor, Building 85-214  
Bradley International Airport  
Windsor Locks, Connecticut 06096-1009  
Telephone: 860-654-1000

### DISTRICT OF COLUMBIA

Hallmark Building  
13873 Park Center Road, Suite 475  
Herndon, VA 20171  
Telephone: 703-230-7664  
Fax: 703-230-7720

### MAINE

Portland International Jetport  
2 AL McKay Avenue  
Portland, Maine 04102  
Telephone: 207-780-3263

### MARYLAND

890 Airport Park Road  
Cromwell Business Park  
Glen Burnie, Maryland 21061  
Mailing Address  
BWI Airport, Maryland 21240  
Telephone: 410-787-0040

### MASSACHUSETTS

One Cranberry Hill  
Fourth Floor, Suite 402  
Lexington, Massachusetts 02421-7394  
Telephone: 781-274-7130  
Fax: 781-274-6725

### NEW JERSEY

Park 80 West, Plaza One  
Saddlebrook, New Jersey 07663  
Telephone: 201-556-6600

### NEW YORK

7 Airport Park Boulevard  
Latham, New York 12110  
Telephone: 518-785-5660

Administrative Building, Suite 235  
Route 110, Republic Airport  
Farmingdale, New York 11735  
Telephone: 631-755-1300

990 Stewart Ave., Suite 630  
Garden City, NY 11530-4858  
Telephone: 516-228-8033

#1 Airport Way, Suite 110  
Rochester, New York 14624  
Telephone: 585-436-3880

### PENNSYLVANIA

Allegheny County Airport  
3000 Lebanon Church Road, Suite 300  
West Mifflin, Pennsylvania 15122  
Telephone: 412-466-5357

Allentown-Bethlehem-Easton Airport  
961 Marcon Blvd., Suite 111  
Allentown, Pennsylvania 18103  
Telephone: 610-264-2888

Capital City Airport  
400 Airport Rd, Room 101  
New Cumberland, Pennsylvania 17070  
Telephone: 717-774-8271

International Plaza #2, 2nd Floor  
Philadelphia, Pennsylvania 19113  
Telephone: 610-595-1500

One Thorn Run Center, Suite 200  
1187 Thorn Run Extension  
Coraopolis, PA 15108  
Telephone: 412-262-9034

### VIRGINIA

Richmond Intl  
5757 Huntsman Rd, Suite 100  
Richmond, Virginia 23250-2415  
Telephone: 804-222-7494

### WEST VIRGINIA

Yeager Airport  
301 Eagle Mountain Road, Room 144  
Charleston, West Virginia 25311  
Telephone: 304-347-5199

## PREFERRED IFR ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic, using federal airways. The preferred IFR routes which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic service.

The following lists contain preferred IFR routes for the low altitude stratum and the high altitude stratum. The high altitude list is in two sections; the first section showing terminal to terminal routes and the second section showing single direction route segments. Also, on some high altitude routes low altitude airways are included as transition routes.

The following will explain the terms/abbreviations used in the listing:

1. Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flight are normally cleared directly on the airway.

2. Preferred IFR routes beginning/ending with a fix indicate that aircraft may be routed to/from these fixes via a Standard Instrument Departure (SID) route, radar vectors (RV), or a Standard Terminal Arrival Route (STAR).

3. Preferred IFR routes for major terminals selected are listed alphabetically under the name of the departure airport. Where several airports are in proximity they are listed under the principal airport and categorized as a metropolitan area; e.g., New York Metro Area.

4. Preferred IFR routes used in one direction only for selected segments, irrespective of point of departure or destination, are listed numerically showing the segment fixes and the direction and times effective.

5. Where more than one route is listed the routes have equal priority for use.

6. Official location identifiers are used in the route description for VOR/VORTAC nav aids.

7. Intersection names are spelled out.

8. Navaid radial and distance fixes (e.g., ARD20113) have been used in the route description in an expediency and intersection names will be assigned as soon as routine processing can be accomplished. Navaid radial (no distance stated) may be used to describe a route to intercept a specified airway (e.g., MIV MIV101 V39); another navaid radial (e.g., UIM UIM255 GSW081); or an intersection (e.g., GSW081 FITCH).

9. Where two nav aids, an intersection and a nav aid, a nav aid and a nav aid radial and distance point, or any navigable combination of these route descriptions follow in succession, the route is direct.

10. The effective times for the routes are in UTC. During periods of daylight saving time effective times will be one hour earlier than indicated. All states observe daylight saving time except Arizona, Puerto Rico and the Virgin Islands. Pilots planning flight between the terminals or route segments listed should file for the appropriate preferred IFR route.

11. (90–170 incl) altitude flight level assignment in hundred of feet.

12. The notations pressurized and unpressurized for certain low altitude preferred routes to Kennedy Airport indicate the preferred route based on aircraft performance.

13. High Altitude Preferred IFR Routes are in effect during the following time periods unless otherwise noted.

Sun ..... 1300–2259 local time.

Mon thru Fri ..... 0701–2259 local time.

Sat ..... 0701–1459 local time.

14. Use current SIDs and STARs for flight planning.

15. For high altitude routes, the portion of the routes contained in brackets [ ] is suggested but optional. The portion of the route outside the brackets will likely be required by the facilities involved.

## LOW ALTITUDE

Terminals	Route	Effective Times (UTC)
<b>ALBANY (ALB)</b>		
Boston (BOS) .....	(60–170 incl) V2 GDM GDM-STAR .....	1100–0300
Kennedy (JFK) .....	(60–170 incl, non-jet) V44 DPK .....	1100–0300
La Guardia (LGA) .....	(70–170 incl, less than 250 kts) V123 .....	1100–0300
	or	
	(110–170 incl, 250 kts or more) IGN V157	
	HAARP .....	1100–0300
NE Philadelphia (PNE) .....	(90–170, non-turbojet) V14 CEDOR DNY051 DNY	
	LHY LVZ V613 FJC V149 MAZIE ARD .....	1100–0300
	or	
	(90–170, turbojet) V14 CEDOR DNY051 DNY LHY	
	LVZ V29 ETX V30 V149 MAZIE ARD .....	1100–0300
Newark (EWR) .....	(70–170 incl, non-turbojet) V489 COATE .....	1100–0300
	or	
	(110–170 incl, turbojet) V213 .....	
	TALCO SHAFF-STAR .....	1100–0300

Terminals	Route	Effective Times (UTC)
Philadelphia (PHL) .....	(60–170 incl less than 210 kts, non–turbojet) V14 CEDOR DNY051 DNY V449 LHY V93 LVZ V29 PTW .....	1100–0300
	or	
	(60–170 incl 210 kts plus, non–turbojet) V14 CEDOR DNY051 DNY V449 LHY V93 LVZ V613 FJC PTW .....	1100–0300
	or	
	(70–170 turbojets only) V14 CEDOR DNY051 DNY SLATT–STAR .....	
Trenton (TTN) .....	(90–170, non–turbojet) V14 CEDOR DNY051 DNY LHY LVZ V613 FJC V149 MAZIE ARD .....	1100–0300
	or	
	(90–170, turbojet) V14 CEDOR DNY051 DNY LHY LVZ V29 ETX V30 V149 MAZIE ARD .....	1100–0300
<b>BALTIMORE (BWI)</b> —See Washington/Baltimore Metro		
<b>BOSTON METRO AREA (BOS)</b>		
Cleveland (CLE) .....	(60–170) MHT V490 UCA V2 SYR V84 GEE V464 V115 TDT V72 V232 CXR .....	1000–0300
Kennedy (JFK) .....	(110–170, jets) LUCOS SEY067 SEY PARCH CCC ROBER .....	1100–0300
	or	
	(110–170, Props) LUCOS SEY067 SEY HTO V46 DPK .....	
	or	
	(AOB 100) BOSOX V419 V14 ORW V16 DPK .....	
La Guardia (LGA) .....	(110–170 incl, more than 250 kts) BOSOX BDL BDL255 VALRE V157 HAARP .....	1100–0300
	or	
	(110–170 incl, less than 250 kts) GLYDE BAF PWL V405 CASSH V123 HAARP .....	
Martha's Vineyard (MVY) .....	BOS V141 DRUNK .....	0000–2359
NE Philadelphia (PNE) .....	(60–100, non–turbojet, water) ARCER SEY V268 HTO V139 BRIGS ACY V184 OOD .....	1100–0300
	or	
	(90–170, non–turbojet) V292 SAGES V408 LHY LVZ V613 FJC V149 MAZIE ARD .....	1100–0300
	or	
	(110–170, water) BOS LUCOS SEY067 SEY HTO V139 MANTA V276 ARD .....	1100–0300
	or	
	(110–170, non–turbojet, water) BOS LUCOS SEY067 SEY HTO V139 BRIGS ACY V184 OOD .....	1100–0300
	or	
	(60–100, water) ARCER SEY V268 HTO V139 MANTA V276 ARD .....	1100–0300
	or	
	(110–170, jets) BOS LUCOS SEY067 SEY HTO V139 BRIGS CEDAR LAKE–STAR .....	1100–0300
Newark (EWR) .....	(110–170 incl, props) GLYDE BAF V292 SAGES V489 COATE .....	1100–0300
	or	
	(110–170, Jets) BOSOX BDL SHAFF–STAR .....	1100–0300
Philadelphia (PHL) .....	(80–170 incl) ARCER SEY V268 HTO V308 DRIFT V312 CYN .....	1100–0300
	or	
	(60–170, non–turbojet, >210 kts) V292 SAGES V408 LHY V93 LVZ V613 FJC PTW .....	1100–0300
Rochester (ROC) .....	(60–170 incl) MHT V490 UCA V2 .....	1000–0300
Syracuse (SYR) .....	(60–170 incl) MHT V490 UCA V2 .....	1000–0300
Trenton (TTN) .....	(60–100, water) ARCER SEY V268 HTO V139 MANTA V276 ARD .....	1100–0300
	or	



Terminals	Route	Effective Times (UTC)
	(110–170, water) BOS LUCOS SEY067 SEY HTO V139 MANTA V276 ARD .....	1100–0300
	or	
	(90–170, non-turbojet) V292 SAGES V408 LHY LVZ V613 FJC V149 MAZIE ARD .....	1100–0300
Washington Natl (DCA) .....	(80–170 incl) ARCER AVONN V268 HTO V308 OTT .....	1100–0300
Wilmington (ILG) .....	(60–100, non-turbojet, water) ARCER SEY V268 HTO V139 BRIGS ACY V184 OOD .....	1100–0300
	or	
	(110–170, non-turbojet, water) BOS LUCOS SEY067 SEY HTO V139 BRIGS ACY V184 OOD .....	1100–0300
	or	
	(110–170, turbojets) BOS LUCOS SEY067 SEY HTO V139 BRIGS CEDAR LAKE–STAR .....	1100–0300
<b>BUFFALO (BUF)</b>		
Boston (BOS) .....	(60–170 incl) V252 GEE V14 GDM GDM-STAR ....	1100–0300
Chicago Midway (MDW) .....	(60–170 incl) V84 LAN V218 ELX V55 GIJ V156 V92 CGT .....	1100–0300
Chicago O'Hare (ORD) .....	(60–170 incl) V84 PAPPI .....	1100–0300
Cleveland (CLE) .....	(60–170 incl) V115 JHW V270 ERI V14 JFN CXR .	1100–0300
Detroit Metro Wayne Co (DTW) .....	(60–170 incl) V2 YQO SPICA–STAR .....	1100–0300
Detroit Satellites:		
Ann Arbor (ARB), Windsor (CYQG), Willow Run (YIP) .....	(60–170 incl) V2 YQO .....	1100–0300
Elmira (ELM) .....	(60–170 incl) V14 GEE V147 .....	1100–0300
Philadelphia (PHL) .....	(60–170 incl) V33 V210 BUNTS .....	
Pittsburgh (PIT) .....	(60–170 incl) V115 TDT CIP GRACE–STAR .....	1100–0300
Washington Natl (DCA) .....	(60–170 incl) V33 BFD V170 V93 BAL .....	1100–0300
<b>CAPE COD (CPD)</b>		
Atlantic City (ACY) .....	(60–100 singles) V34 SEY V268 HTO CCC V16 DIXIE V229 .....	1000–0300
	or	
	(AOB 100 all) V34 SEY V268 HTO V308 BRIGS ...	1000–0300
	or	
	(AOB 100 all) V146 BAF V292 SAGES V408 LHY V106 LVZ V29 MXE V184 .....	1000–0300
Dover AFB (DOV) .....	( 60 –100 singles) V34 SEY V268 HTO V46 DPK V16 ENO .....	1000–0300
	or	
	(AOB 100 all) V34 SEY V268 ENO .....	1000–0300
	or	
	(AOB 100 all) PVD V146 BAF V292 SAGES V408 LHY V106 LVZ V29 ENO .....	1000–0300
Dubois (DUJ) .....	(AOB 100 all) PVD V146 BAF V292 SAGES V408 LHY V58 FQM V226 PARDY .....	1000–0300
Gaithersburg (GAI) .....	(60–100 singles) V34 SEY V268 HTO V46 DPK V16 ENO V268 BAL .....	1000–0300
	or	
	(AOB 100 all) SEY HTO V268 EMI .....	1000–0300
	or	
	(AOB 100 all) PVD V146 BAF V292 SAGES V408 LHY V93 LRP V457 EMI .....	1000–0300
NE Philadelphia (PNE) .....	(60–100, single engine only) V34 SEY V268 HTO V46 DPK V16 CYN V312 OOD .....	1100–0300
	or	
	(60–100, non-turbojet, water) ARCER SEY V268 HTO V139 BRIGS ACY V184 OOD .....	1100–0300
	or	
	(110–170, non-turbojet) BOS LUCOS SEY067 SEY HTO V139 BRIGS ACY V184 OOD .....	1100–0300
	or	
	(110–170, jets) BOS LUCOS SEY067 SEY HTO V139 BRIGS CEDAR LAKE–STAR .....	1100–0300
	or	

Terminals	Route	Effective Times (UTC)
	(60–100, water) ARCER SEY V268 HTO V139 MANTA V276 ARD ..... or (110–170, water) BOS LUCOS SEY067 SEY HTO V139 MANTA V276 ARD ..... or (90–170, non–turbojet) V292 SAGES V408 LHY LVZ V613 FJC V149 MAZIE ARD ..... Newark (EWR) ..... (110–170, turbojet) BOSOX BDL SHAFF–STAR .... 1100–0300 Newburgh (SWF) ..... (AOB 100 all) PVD V405 BDL V205 TRESA ..... 1000–0300 Trenton (TTN) ..... (60–100, water) ARCER SEY V268 HTO V139 MANTA V276 ARD ..... 1100–0300 or (110–170, water) BOS LUCOS SEY067 SEY HTO V139 MANTA V276 ARD ..... 1100–0300 or (90–170, non–turbojet) V292 SAGES V408 LHY LVZ V613 FJC V149 MAZIE ARD ..... 1100–0300 White Plains (HPN) ..... (AOA 110, 250 kts or less) PVD V146 BAF V106 PWL V405 CASSH V123 HAARP ..... 1100–0300 or (AOA 110, more than 250 kts) PVD PUT BDL IGN V157 HARRP ..... Wilmington (ILG) ..... (60–100 single engine only) V34 SEY V268 HTO V46 DPK V16 CYN V312 OOD ..... 1000–0300 or (60–100, non–turbojet, water) ARCER SEY V268 HTO V139 BRIGS ACY V184 OOD ..... 1000–0300 or (AOB 100 all) PVD V146 BAF V292 SAGES V408 LHY V106 LVZ V29 DQO ..... 1000–0300 or (110–170, non–turbojet, water) BOS LUCOS SEY067 SEY HTO V139 BRIGS ACY V184 OOD ..... 1100–0300 or (110–170, jets) BOS LUCOS SEY067 SEY HTO V139 BRIGS CEDAR LAKE–STAR ..... 1100–0300	
<b>CHARLESTON (CRW)</b>		
Pittsburgh (PIT) .....	(60–170 incl) V115 JPU V117 WISKE WISKE–STAR .....	
<b>KENNEDY (JFK)</b> —See New York Metro Area		
<b>LA GUARDIA (LGA)</b> —See New York Metro Area		
<b>MONTREAL (CYUL)</b>		
Newark (EWR) .....	(80–170 incl, 250 kts or less) V282 SLK V203 ALB V489 COATE ..... or (110–170 incl, more than 250 kts) V282 SLK V203 ALB V213 SAX ..... 1100–0300 1100–0300	
<b>NEW YORK METRO AREA</b>		
From <b>KENNEDY (JFK)</b> only		
Albany (ALB) .....	(70–170 incl) BDR V487 CANAN V130 .....	1100–0300
Baltimore (BWI) .....	(90–170 incl, 250 kts or less) WHITE V1 LEEAH V268 ..... or (140–170 incl, more than 250 kts) RBV RBV274 MXE056 V378 BAL ..... 1100–0300 1100–0300	
Boston (BOS) .....	(110–170, turbojet) MERIT ORW PVD ORW–STAR ..... or (110–170, non–turbojet) MERIT ORW V16 WOONS ..... 1100–0300 1100–0300	
Burlington (BTV) .....	(90–170 incl) BDR V487 .....	1100–0300

Terminals	Route	Effective Times (UTC)
Hagerstown (HGR) .....	(140-160) RBV V276 V162 HAR V377 .....	1100-0300
	or	
	(90-130 incl) COATE V188 LVZ V93 DUMMR V162 HAR V377 .....	
Harrisburg (MDT) .....	(90-130 incl) COATE V188 LVZ V93 DUMMR V162 HWANG .....	1100-0300
	or	
	(140-160 incl) RBV V276 V162 HWANG .....	1100-0300
	or	
	(90-130 incl) COATE V188 LVZ V93 DUMMR V162 HYPER V143 ROBERT AML .....	1100-0300
Montreal (CYUL) .....	(110-170) BDR V487 BTW V91 NAPEE .....	1100-0300
Norfolk (ORF) .....	(90-170 incl, more than 250 kts) WAVEY PLUME V139 CCV .....	1100-0300
	or	
	(90-170 incl, 250 kts or less) WHITE V1 CCV .....	1100-0300
Portland (PWM) .....	(110-170) MERIT HFD EEN CON CON061 NEETS .....	1100-0300
Providence (PVD) .....	(110-170 incl) BAYYS V229 SEALL V188 GON V374 MINNK .....	1100-0300
Rochester (ROC) .....	(90-130 incl) HAAYS HUO V252 GIBBE .....	1100-0300
	or	
	(140-170 incl) GAYEL V374 CFB V252 GIBBE .....	1100-0300
Rome (RME) .....	(90-170) HAAYS V273 V449 DNY V249 UCA .....	1100-0300
Syracuse (SYR) .....	(90-130 incl) HAAYS HUO V252 CFB V29 .....	1100-0300
	or	
	(140-170 incl) GAYEL V374 CFB .....	1100-0300
Toronto (CYYZ) .....	(90-130 incl) COATE V126 LHY ULW V36 .....	1100-0300
	or	
	(140-170 incl) GAYEL V374 CFB V270 ULW V36 .....	1100-0300
Washington Dulles (IAD) .....	(140-170 incl, jets) RBV V276 V457 LRP V143 MULRR AML .....	1100-0300
	or	
	(140-170 incl, props) RBV V276 V39 LRP V143 MULRR AML .....	1100-0300
Washington Natl (DCA) .....	(80-170 incl, 250 kts or less) V1 LEEAH V229 V308 OTT .....	1100-0300
	or	
	(80-170 incl, more than 250 kts) WAVEY PLUME V308 BILIT .....	1100-0300
<b>From LA GUARDIA (LGA) only</b>		
Albany (ALB) .....	(70-170 incl) BDR V487 CANAN V130 .....	1100-0300
Baltimore (BWI) .....	(90-170 incl) BIGGY V3 MXE V378 BAL .....	1100-0300
Binghamton (BGM) .....	(90-170 incl) HAAYS HUO V252 CFB .....	1100-0300
Boston (BOS) .....	(110-170 turbojet) MERIT ORW PVD ORW-STAR .....	1100-0300
	or	
	(110-170 non-turbojet) MERIT ORW V16 WOONS .....	1100-0300
Cleveland (CLE) .....	(90-100 incl) LANNA V30 SEG V6 YNG CXR .....	1100-0300
	or	
	(140-170 incl.) ELIOT V39 ETX V30 SEG V6 YNG CXR .....	1100-0300
Elmira (ELM) .....	(90-170 incl) COATE V126 LHY ULW .....	1100-0300
Harrisburg (CXY) .....	(90-100) LANNA V30 ETX V162 HWANG .....	1100-0300
	or	
	(110-170 incl) ELIOT V39 ETX V162 HWANG .....	1100-0300
Manchester (MHT) .....	(110-170 non-turbojet) MERIT HFD V229 GDM V106 .....	1100-0300
	or	
	(110-170, turbojet) MERIT HFD EEN MHT .....	1100-0300
Martha's Vineyard (MVY) .....	(110-170 incl) BAYYS V229 SEALL V188 GON V374 .....	1100-0300
Montreal (CYUL) .....	(70-170 incl) BDR V91 BOWAN V487 BTW V91 NAPEE .....	1100-0300
Nantucket (ACK) .....	(110-170 incl) BAYYS V229 SEALL V188 GON V374 ORW130 DEEPO V46 .....	1100-0300

Terminals	Route	Effective Times (UTC)
Norfolk (ORF) .....	(90-170 incl) WHITE V1 CCV .....	
Pittsburgh (PIT) .....	(90-100 incl) LANNA V30 PSB GRACE-STAR .....	1100-0300
	or	
	(140-170 incl) ELIOT V39 ETX V30 PSB	
	GRACE-STAR .....	1100-0300
Portland (PWM) .....	(110-170 all) MERIT HFD EEN CON CON061	
	NEETS .....	1100-0300
Providence (PVD) .....	(110-170 incl) BAYYS V229 SEALL V188 GON	
	V374 MINNK .....	1100-0300
Richmond (RIC) .....	(90-170 incl) WHITE V1 CCV HPW .....	1100-0300
Rochester (ROC) .....	(90-170 incl) HAAYS HUO V252 GIBBE .....	1100-0300
Rome (RME) .....	HAAYS V273 V449 DNY V249 UCA .....	1100-0300
Syracuse (SYR) .....	(90-170 incl, less than 250 kts) HAAYS HUO	
	V252 CFB V29 .....	1100-0300
	or	
	(90-170 incl, 250 kts plus) GAYEL CFB .....	1100-0300
Toronto (CYYZ) .....	(90-170 incl) COATE V126 LHY ULW V36 .....	1100-0300
Washington Dulles (IAD) .....	(140-170 incl, jets) PARKE V457 LRP V143	
	MULRR AML .....	1100-0300
	or	
	(140-170 incl, props) ELIOT V39 LRP V143	
	MULRR AML .....	1100-0300
	or	
	(90-130 incl, props) LANNA V30 ETX V39 LRP	
	V143 ROBRT AML .....	1100-0300
Washington Natl (DCA) .....	(90-170 incl, props) BIGGY V3 MXE V378 BAL ..	1100-0300
Wilkes-Barre/Scranton (AVP) .....	(90-170 incl) COATE V188 LVZ .....	1100-0300
From <b>NEWARK (EWR)</b> only		
Albany (ALB) .....	(70-170 incl, turbojets) BDR V487 CANAN V130 .	1100-0300
	or	
	(70-170 less than 210 kts) BREZY V39 SOARS	
	V487 CANAN V130 .....	1100-0300
	or	
	(70-170, greater than 210 kts) HAAYS V273	
	V449 .....	1100-0300
Baltimore (BWI) .....	(90-170 incl) BIGGY V3 MXE V378 .....	1100-0300
Bedford (BED) .....	(110-170 incl) MERIT HFD GRAYM-STAR .....	1100-0300
Binghamton (BGM) .....	(90-170 incl) HAAYS HUO V252 CFB .....	1100-0300
Boston (BOS) .....	(110-170, turbojet) MERIT ORW PVD ORW-STAR .	1100-0300
	or	
	(110-170, non-turbojet) MERIT ORW V16 WOONS	
	.....	1100-0300
Buffalo (BUF) .....	(90-170 incl) COATE V126 LHY ULW ULW306	
	V164 .....	1100-0300
Burlington (BTV) .....	(110-170 incl) GREKI V39 SOARS V487 .....	1100-0300
Cleveland (CLE) .....	(90-100 incl) LANNA V30 SEG V6 YNG CXR .....	1100-0300
	or	
	(140-170 incl ) ELIOT V39 ETX V30 SEG V6 YNG	
	CXR .....	1100-0300
Elmira (ELM) .....	(90-170 incl) COATE V126 LHY ULW .....	1100-0300
Harrisburg (CXV) .....	(90-100 incl) LANNA V30 ETX V162 HWANG .....	1100-0300
	or	
	(110-170 incl) ELIOT V39 ETX V162 HWANG .....	1100-0300
Hyannis (HYA) .....	(110-170 incl) BAYYS V229 SEALL V188 GON	
	V374 MUY .....	1100-0300
Manchester (MHT) .....	(110-170, non-turbojet) MERIT HFD V229 GDM	
	V106 .....	1100-0300
	or	
	(110-170 turbojet) MERIT HFD EEN MHT .....	1100-0300
Martha's Vineyard (MVY) .....	(110-170 incl) BAYYS V229 SEALL V188 GON	
	V374 .....	1100-0300
Martinsburg (MRB) .....	(90-100) LANNA V30 ETX V39 .....	1100-0300
	or	
	(110-170 incl) ELIOT V39 .....	1100-0300
Martin State (MTN) .....	(90-170 incl) BIGGY V3 MXE V408 VINNY V93	
	SKILS .....	1100-0300

Terminals	Route	Effective Times (UTC)
Montreal (CYUL) .....	(70-170 incl) BDR V91 BOWAN V487 BTW V91 NAPEE .....	1100-0300
Nantucket (ACK) .....	(110-170 incl) BAYYS V229 SEALL V188 GON V374 ORW130 DEEPO V46 .....	1100-0300
Norfolk (ORF) .....	(90-170 incl) WHITE V1 CCV .....	1100-0300
Norwood (OWD) .....	(110-170 incl) MERIT ORW V16 WOONS .....	1100-0300
Pittsburgh (PIT) .....	(90-100 incl) LANNA V30 PSB GRACE-STAR .....	1100-0300
	or (140-170 incl.) ELIOT V39 ETX V30 PSB GRACE-STAR .....	1100-0300
Portland (PWM) .....	(110-170, all) MERIT HFD EEN CON CON061 NEETS .....	1100-0300
Providence (PVD) .....	(110-170 incl) BAYYS SEALL V188 GON V374 MINNK .....	1100-0300
Richmond (RIC) .....	(90-170 incl) WHITE V1 CCV HPW .....	1100-0300
Rochester (ROC) .....	(90-170 incl) HAAYS HUO V252 GIBBE .....	1100-0300
Rome (RME) .....	(90-170, all others) HAAYS V273 V449 DNY V249 UCA .....	1100-0300
Syracuse (SYR) .....	(90-170 incl, less than 250 Kts) HAAYS HUO V252 CFB V29 .....	1100-0300
	or (90-170 incl, 250 Kts plus) GAYEL CFB .....	1100-0300
Toronto (CYYZ) .....	(90-170 incl) COATE V126 LHY ULW V36 .....	1100-0300
Washington Dulles (IAD) .....	(140-170 incl, jets) PARKE V457 LRP V143 MULRR AML .....	1100-0300
	or (140-170 incl, props) ELIOT V39 LRP V143 MULRR AML .....	1100-0300
	or (90-130 incl, props) LANNA V30 ETX V39 LRP V143 MULRR AML .....	1100-0300
Washington Natl (DCA) .....	(90-170 incl, props) BIGGY V3 MXE V378 BAL ..	1100-0300
Wilkes-Barre/Scranton (AVP) .....	(90-170 incl) COATE V188 LVZ .....	1100-0300
From <b>WHITE PLAINS (HPN)</b> only		
Albany (ALB) .....	(70-170 incl) BDR V487 CANAN V130 .....	1100-0300
Baltimore (BWI) .....	(90-170 incl ) BIGGY V3 MXE V378 BAL .....	1100-0300
Binghamton (BGM) .....	(90-170 incl) HAAYS HUO V252 CFB .....	1100-0300
Boston (BOS) .....	(110-170 turbojet) MERIT ORW PVD ORW-STAR ..	1100-0300
	or (110-170 non-turbojet) MERIT ORW V16 WOONS .....	1100-0300
Cleveland (CLE) .....	(90-170 incl) COATE V126 LHY V58 PSB V6 YNG CXR .....	1100-0300
Elmira (ELM) .....	(90-170 incl) COATE V126 LHY ULW .....	1100-0300
Harrisburg (CXY) .....	(90-100) LANNA V30 ETX V162 HWANG .....	1100-0300
	or (110-170 incl) ELIOT V39 ETX V162 HWANG .....	1100-0300
Manchester (MHT) .....	(110-170 non-turbojet) MERIT HFD V229 GDM V106 .....	1100-0300
	or (110-170, turbojet) MERIT HFD EEN MHT .....	1100-0300
Martha's Vineyard (MVY) .....	(110-170 incl) BAYYS V229 SEALL V188 GON V374 .....	1100-0300
Montreal (CYUL) .....	(70-170 incl) GREKI V39 SOARS V487 BTW V91 NAPEE .....	1100-0300
Nantucket (ACK) .....	(110-170 incl) BAYYS V229 SEALL V188 GON V374 ORW130 DEEPO V46 .....	1100-0300
Norfolk (ORF) .....	(90-170 incl) WHITE V1 CCV .....	1100-0300
Norwood (OWD) .....	(110-170 incl) MERIT ORW V16 WOONS .....	1100-0300
Pittsburgh (PIT) .....	(90-170 incl) COATE V126 LHY V58 PSB GRACE-STAR .....	1100-0300
Portland (PWM) .....	(110-170, all) MERIT HFD EEN CON CON061 NEETS .....	1100-0300
Providence (PVD) .....	(110-170 incl) BAYYS V229 SEALL V188 GON V374 MINNK .....	1100-0300
Richmond (RIC) .....	(110-170 incl) WHITE V1 CCV HPW .....	1100-0300

Terminals	Route	Effective Times (UTC)
Rochester (ROC) .....	(90–170 incl) HAAYS HUO V252 GIBBE .....	1100–0300
Syracuse (SYR) .....	(90–130 incl) HAAYS HUO V252 CFB V29 .....	1100–0300
	or	
	(140–170 incl) HAAYS HUO V252 CFB .....	1100–0300
Toronto (CYYZ) .....	(90–170 incl) COATE V126 LHY ULW V36 .....	1100–0300
Washington Dulles (IAD) .....	(140–170 incl, jets) PARKE V457 LRP V143	
	MULRR AML .....	1100–0300
	or	
	(140–170 incl, props) ELIOT V39 LRP V143	
	MULRR AML .....	1100–0300
	or	
	(90–130 incl, props) LANNA V30 ETX V39 LRP	
	V143 MULRR AML .....	1100–0300
Washington Natl (DCA) .....	(90–170 incl, props) BIGGY V3 MXE V378 BAL ..	1100–0300
Wilkes-Barre/Scranton (AVP) .....	(90–170 incl) COATE V188 LVZ .....	1100–0300
<b>NORFOLK METRO AREA</b>		
Baltimore (BWI) .....	HPW V213 PXT V93 GRACO .....	1100–0300
Kennedy (JFK) .....	(90–170 incl, 250 kts or less) SCHOL SBY200	
	V139 SIE V44 PANZE V184 ZIGGI .....	1100–0300
	or	
	(90–170 incl, more than 250 kts) SCHOL	
	SBY200 V139 SIE CAMRN-STAR .....	1100–0300
La Guardia (LGA) .....	(90–170, non-jet) SCHOL SBY200 SBY V29 DQO	
	V479 RUUTH V123 RENUE .....	1100–0300
	or	
	(90–170 incl, more than 250 kts, non-jet) SCHOL	
	SBY200 SBY V29 V445 Nanci .....	1100–0300
Newark (EWR) .....	(110–170 incl, turbojets only) HPW V213 PXT	
	DYLIN-STAR .....	1100–0300
	or	
	(non-jets, 180 kts or greater) HPW V213 PXT	
	PXT023 GATBY V445 DQO V479 RUUTH V123	
	RBV RBV005 OWBIE .....	1100–0300
	or	
	(50–90 incl, non-jet, less than 180 kts) SCHOL	
	SBY V29 MXE ARD V214 METRO .....	1100–0300
Philadelphia (PHL) .....	(70–170 incl) SCHOL SBY200 V139 SWL	
	SWLO34 RADDS VCN-STAR .....	1100–0300
Teterboro (TEB) .....	(advanced navigation, turbojets only) HPW V213	
	PXT JAIKE-STAR .....	1100–0300
	or	
	(turboprop) HPW V213 PXT PXT023 GATBY V445	
	DQO DQO029 V3 SBJ TEB .....	1100–0400
	or	
	(piston) SCHOL SBY V29 MXE V3 SBJ TEB .....	1100–0400
Washington Dulles (IAD) .....	(Jet only) HPW RIC COATT-STAR .....	1100–0300
	or	
	(Non-Jet) HPW RIC RIC345 COATT V155 BRV	
	BRV007 BARIN .....	1100–0300
Washington Natl (DCA) .....	HPW RIC IRONS-STAR .....	1100–0300
<b>PHILADELPHIA METRO AREA</b>		
Binghamton (BGM) .....	(90–170 incl) PTW PTW320 V499 CFB .....	1100–0300
Boston (BOS) .....	(90–170 incl) DITCH V312 DRIFT V308 ORW V16	
	WOONS .....	1100–0300
Buffalo (BUF) .....	(90–170 incl) PTW PTW320 V499 V164 FQM V31	
	ULW ULW306 V164 .....	1100–0300
Cleveland (CLE) .....	(60–170 incl) MXE V474 IHD V119 GALLS V214	
	AIR V8 BSV KEATN-STAR .....	1100–0300
Detroit Metro-Wayne Co (DTW) .....	(60–170 incl) PTW PTW320 V276 RAV V170 ERI	
	SPICA-STAR .....	1100–0300
Detroit Satellites:		
Coleman A Young (DET), Windsor		
(CYQG), Pontiac (PTK), Willow Run		
(YIP), Ann Arbor (ARB) .....		
	PTW PTW320 V276 RAV V170 ERI .....	

Terminals	Route	Effective Times (UTC)
Elmira (ELM) .....	(90–170 incl) PTW PTW320 V499 V164 FQM V31 ULW .....	1100–0300
Kennedy (JFK) .....	(110–170, turbojets only) DITCH V312 V44 CAMRN .....	1100–0300
Norfolk (ORF) .....	(80–170 incl) OOD SBY V1 CCV .....	1100–0300
Richmond (RIC) .....	(80–170 incl) OOD OOD198 V229 PXT V16 .....	1100–0300
Syracuse (SYR) .....	(90–170 incl) PTW PTW320 V499 CFB V29 .....	1100–0300
Toronto (CYYZ) .....	(90–170 incl) PTW PTW320 V499 V164 FQM V31 ULW V36 .....	1100–0300
Washington Dulles (IAD) .....	(90–170 incl, turbojets only) MXE V474 V143 MULRR AML .....	1100–0300
Washington Natl (DCA) .....	(Turbojets only) MXE V378 BAL .....	1100–0300
White Plains (HPN) .....	(90–170 incl, props ) DITCH V312 DRIFT V139 RICED RICED-STAR .....	1100–0300
Windsor Locks (BDL) .....	(90–170 incl) DITCH V312 DRIFT V139 MAD193 MAD MAD341 BRISS .....	
<b>PITTSBURGH METRO AREA (PIT)</b>		
Baltimore (BWI) .....	(90–170 incl) MGW V44 MRB V3 EMI .....	1100–0300
Boston (BOS) .....	(60–170) TON V35 ULW V72 ALB V2 GDM GDM-STAR .....	1100–0300
Buffalo (BUF) .....	(60–170 incl) EWC FKL DKK DKK020 WELLA .....	1100–0300
Chicago Midway (MDW) .....	(60–170 incl) BSV V8 FDY V422 CGT .....	1100–0300
Chicago O'Hare (ORD) .....	BSV V8 FDY V422 OXI V340 BEARZ .....	1100–0300
Cleveland (CLE) .....	(60–170 incl) BSV KEATN-STAR .....	1100–0300
Columbus (CMH/TZR) .....	(60–170 incl) TVT V43 APE .....	1100–0300
Detroit Metro-Wayne Co (DTW) .....	(60–170 incl) BSV DJB DJB314 GEMNI GEMNI-STAR .....	
Detroit Satellites:		
Ann Arbor (ARB), Willow Run (YIP) .....	(60–170 incl) EWC V37 ERI V221 V2 .....	1100–0300
Coleman A Young (DET), Pontiac (PTK), Windsor (CYQG) .....	(60–170 incl) BSV V40 DJB LLEEO-STAR .....	1100–0300
Harrisburg (MDT) .....	(60–170 incl) REC V210 HAR .....	1100–0300
Indianapolis (IND) .....	(60–170 incl) TVT V210 MIE CLANG-STAR .....	1100–0300
Kennedy (JFK) .....	(90–170 incl) TON PSB V6 SBJ V232 COL .....	1100–0300
La Guardia (LGA) .....	TON PSB V6 LIZZI .....	
Newark (EWR) .....	(70–170 incl, 250 kts or less) TON V35 PSB V58 FQM PENNS-STAR .....	1100–0300
Philadelphia (PHL) .....	(60–170 incl) REC V210 BUNTS .....	1100–0300
Washington Natl (DCA) .....	(90–170 incl) MGW V144 ESL V4 AML .....	1100–0300
White Plains (HPN) .....	(60–170 incl, props) TON PSB V58 IGN NOBBI-STAR .....	1100–0300
<b>PROVIDENCE (PVD)</b>		
La Guardia (LGA) .....	(110–170 incl, more than 250 kts) PUT BDL BDL255 VALRE V157 HAARP .....	1100–0300
	or	
	(110–170 incl, less than 250 kts) V146 BAF V106 PWL V405 CASSH V123 HAARP .....	1100–0300
Newark (EWR) .....	(110–170 incl, turbojets) PUT BDL SHAFF-STAR .....	1100–0300
	or	
	(110–170 incl, non-turbojet) PUT V146 BAF V292 V489 COATE .....	1100–0300
<b>ROCHESTER (ROC)</b>		
Baltimore (BWI) .....	(90–170 incl) V147 ULW V31 HAR V265 EMI .....	1100–0300
Boston (BOS) .....	(60–170 incl) FAULT V31 BEEPS V14 GDM GDM-STAR .....	1100–0300
Detroit Metro Wayne Co (DTW) .....	(60–170 incl) V31 AIRCO BUF V2 YQO SPICA-STAR .....	1100–0300
Detroit Satellites:		
Coleman A Young (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB) .....	(60–170 incl) V31 AIRCO BUF V2 YQO .....	1100–0300
Kennedy (JFK) .....	(90–170 incl, props) V34 BEEPS RKA V433 PWL V44 DPK .....	1100–0300

Terminals	Route	Effective Times (UTC)
Philadelphia (PHL) .....	(70–170 incl) V147 ULW V31 FQM MIP RAV V170 V210 BUNTS .....	
Washington Natl (DCA) .....	(90–170 incl, jet only) V147 ULW V35 PSB PSB149 SHILO V93 BAL .....	1100–0300
	or	
	(90–170 incl, non-jet) V147 ULW V31 HAR V265 KRANT .....	1100–0300
<b>SYRACUSE (SYR)</b>		
Boston (BOS) .....	(60–170 incl) V14 GDM GDM-STAR .....	1100–0300
Kennedy (JFK) .....	(70–170 incl, non-jet) V433 LOVES V44 DPK .....	1100–0300
Newark (EWR) .....	(110–170 incl, turbojets) V273 HNK SHAFF-STAR .....	1100–0300
	or	
	(70–170 incl, all other types) V273 HNK V167 WEARD V489 COATE .....	1100–0300
<b>WASHINGTON/BALTIMORE METRO AREA</b>		
From <b>BALTIMORE (BWI)</b> only		
Albany (ALB) .....	V93 LRP V499 CFB V270 DNY V449 .....	1100–0400
Binghamton (BGM) .....	V93 LRP V499 CFB .....	1100–0300
Boston (BOS) .....	(90–170 incl props) PALEO-DP SIE V308 ORW V16 WOONS .....	1100–0300
Bridgeport (BDR) .....	(90–170 incl) PALEO-DP SIE V139 RICED MAD193 KEYED .....	1100–0300
Buffalo (BUF) .....	V93 SHILO PSB149 KOLBY V265 HAR V31 FQM V164 .....	1100–0300
Charlottesville (CHO) .....	(below 110) V44 MRB V143 CEROL .....	1100–0300
	or	
	(110–170) FLUKY GVE .....	1100–0300
Cleveland (CLE) .....	MRB V501 THS V469 JST V297 TALLS V10 YNG CXR .....	1100–0300
Detroit Metro–Wayne Co (DTW) .....	(turbojets only) MRB V501 THS V469 JST EWC YNG V6 DJB GEMNI -STAR .....	
	or	
	(props only) MRB V501 THS V469 JST EWC YNG V6 DJB SKY SKY292 YQG197 LYNTN .....	
Detroit Satellites:		
Ann Arbor (ARB), Willow Run (YIP) .....	MRB V501 THS V469 JST EWC ERI	
Coleman A Young (DET), Pontiac (PTK), Windsor (CYQG) .....	MRB V501 THS V469 JST EWC YNG V6 V297 LLEE0 LLEE0-STAR	
Greensboro (GSO) .....	(70–170 incl, non-jet) V44 MRB V143 LYH V222 HENBY .....	0000–2359
Hartford (HFD) .....	(90–170 incl) PALEO-DP V308 GON V58 .....	1100–0300
Islip (ISP) .....	(90–170 incl) PALEO-DP SIE V139 SARDI CCC ....	1100–0300
Kennedy (JFK) .....	(90–170 incl, 250 kts or greater) PALEO-DP ACY V229 PANZE V44 CAMRN .....	1100–0300
	or	
	(90–170 incl, less than 250 kts) PALEO-DP ACY V184 ZIGGI .....	1100–0300
Knoxville (TYS) .....	V44 MRB V143 MOL ROA V16 .....	1100–0300
La Guardia (LGA) .....	(Turbojets only) PALEO-DP V44 AGARD KORRY-STAR .....	1100–0400
	or	
	(Non-turbojets) SWANN-DP DQO V479 RUUTH V123 RENUE .....	1100–0300
Nantucket (ACK) .....	(90–170 incl) POLLA V312 PALEO V44 SIE V139 HTO V46 .....	1100–0300
	or	
	(70) POLLA V312 GOLDA V268 ENO V16 JFK V229 BDR V475 V188 GON V374 MVY .....	1100–0300
Newark (EWR) .....	(110–170 incl, turbojets only) SWANN-DP V445 DQO DYLIN-STAR .....	1100–0300
	or	



Terminals	Route	Effective Times (UTC)
	(110–170 incl, non-turbojet, greater than 180 kts) SWANN-DP V445 DQO V479 RUUTH V123 RBV RBV005 OWBIE .....	1100–0300
Newburgh (SWF) .....	V93 LHY V408 FILPS V483 .....	1100–0300
New Haven (HVN) .....	(90–170 incl) PALEO-DP SIE V139 RICED MAD193 KEYED .....	1100–0300
Norfolk (ORF) .....	(70–170 incl, non jet) V93 PXT V16 COLIN V33 V286 STEIN .....	1100–0300
	or (70–170 jets) DAILY V33 V286 STEIN .....	1100–0300
Philadelphia (PHL) .....	(70–170 incl) SWANN-DP DQO .....	1100–0300
Pittsburgh (PIT) .....	(90–170 incl) MRB IHD NESTO–STAR .....	1100–0300
Poughkeepsie (POU) .....	V93 IGN .....	1100–0300
Rochester (ROC) .....	V93 SHILO PSB149 KOLBY V265 HAR V31 GIBBE .....	1100–0300
Syracuse (SYR) .....	(non-jet) V93 SHILO PSB149 KOLBY V265 HAR V31 FQM V423 CFB V29 .....	1100–0300
Teterboro (TEB) .....	(Jets, Advanced Nav Only) SWANN JAIKE–STAR ... or (non-jets, 180 kts or greater) SWANN V445 DQO DQO029 V3 SBJ TEB .....	1100–0300
White Plains (HPN) .....	(110–170 incl) PALEO-DP SIE V139 RICED-STAR . or (70) V93 LRP ETX FJC BWZ SAX V39 BREZY .....	1100–0300
From <b>WASHINGTON DULLES INTL (IAD)</b> only		
Bridgeport (BDR) .....	(90–170 incl) WOOLY V214 BAL V44 SIE V139 RICED MAD193 KEYED .....	1100–0300
Buffalo (BUF) .....	(70–170 incl, non-jet) MRB HGR V501 THS TON ELZ V164 .....	0000–2359
Detroit Metro–Wayne Co (DTW) .....	(Turbojets only) MRB V501 THS V469 JST EWC YNG V6 DJB GEMNI -STAR .....	
	or (Non-turbojet) MRB V501 THS V469 JST EWC YNG V6 DJB SKY SKY292 YQG197 LYNTN .....	
Detroit Satellites:		
Ann Arbor (ARB), Willow Run (YIP) .....	MRB V501 THS V469 JST EWC ERI	
Coleman A Young (DET), Pontiac (PTK), Windsor (CYQG) .....	MRB V501 THS V469 JST EWC YNG V6 V297 LLEO LLEO–STAR .....	
Greensboro (GSO) .....	(70–170 incl, non-jet) CSN V140 MOL V143 LYH V222 HENBY .....	0000–2359
Islip (ISP) .....	(90–170 incl) WOOLY V214 BAL V44 SIE V139 SARDI CCC .....	1100–0300
Kennedy (JFK) .....	(90–170 incl, 250 Kts or greater) PALEO V44 DONIL V229 PANZE V44 CAMRN .....	1100–0300
	or (90–170 incl, less than 250 Kts) WOOLY V44 DONIL V229 ACY V184 ZIGGI .....	1100–0300
La Guardia (LGA) .....	(110–170 incl, turbojets only) PALEO V44 AGARD KORRY–STAR .....	1100–0300
	or (90–170 incl, non turbojets) WOOLY V214 DQO V479 V123 RENUE .....	1100–0300
Newark (EWR) .....	(110–170 incl, turbojets only) AML SWANN V445 DQO DYLIN–STAR .....	1100–0300
	or (110–170 incl, non-turbojet, more than 180 kts) WOOLY V214 SWANN RUUTH–STAR .....	1100–0300
Newburgh (SWF) .....	MRB V501 HGR V377 AML009 SEG230 SEG V106 LHY V408 V483 FILPS .....	1100–0300
New Haven (HVN) .....	(90–170 incl) WOOLY V214 BAL V44 SIE V139 RICED MAD193 KEYED .....	1100–0300
Philadelphia (PHL) .....	(70–170 incl) WOOLY V214 DQO .....	1100–0300
Pittsburgh (PIT) .....	(60–170) MRB V214 GRV IHD NESTO–STAR .....	1100–0300

# PREFERRED IFR ROUTES

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Terminals	Route	Effective Times (UTC)
Raleigh-Durham (RDU) .....	FLUKY GVE SBV-STAR .....	1100-0300
Rochester (ROC) .....	MRB V501 HGR V377 AML009 SEG230 SEG V31 GIBBE .....	1100-0300
Syracuse (SYR) .....	(non-jet) MRB V501 HGR V377 AML009 SEG230 SEG V31 FQM V423 CFB V29 .....	1100-0300
	or	
	(jet) MRB V501 HGR V377 AML009 SEG230 SEG V31 FQM V423 CFB .....	1100-0300
Teterboro (TEB) .....	(Jets, Advanced Nav Only) SWANN FUBRR JAIKE (RNAV)-STAR .....	1100-0300
	or	
	(non-jet, 180 kts or greater) SWANN V445 DQO DQ0029 V3 SBJ TEB .....	1100-0300
White Plains (HPN) .....	(90-170 incl) WOOLY V44 SIE V139 RICED- RICED-STAR .....	1100-0300
	or	
	(70) MRB V501 HGR V377 HAR V162 ETX FJC BWZ SAX V39 BREZY .....	1100-0300
From <b>WASHINGTON NATIONAL (DCA)</b> only		
Albany (ALB) .....	KRANT V265 EMI V457 LRP V499 CFB V270 DNY V449 .....	1100-0300
Allentown (ABE) .....	KRANT V265 EMI V457 LRP V39 ETX FJC .....	1100-0300
Altoona (AOO) .....	KRANT V265 V214 MRB JST AOO .....	1100-0300
Atlantic City (ACY) .....	(90-170) PALEO V44 SIE .....	
	or	
Barnes (Westfield) (BAF) .....	(70) POLLA V312 GOLDA V268 LEEAH .....	1100-0300
	(90-170) POLLA V312 PALEO V44 SIE V139 RICED MAD193 MAD MAD341 BRISS .....	1100-0300
	or	
	(70) PALEO V312 GOLDA V268 ENO V16 JFK V229 BDR BDR014 JUDDS BAF .....	
Bedford (BED) .....	POLLA V312 PALEO V44 SIE V308 ORW GRAYM-STAR .....	1100-0300
	or	
	(70) PALEO V312 GOLDA V268 ENO V16 JFK V229 HFD HFD053 DREEM .....	1100-0300
Binghamton (BGM) .....	KRANT V265 EMI V457 LRP V499 CFB .....	1100-0300
Boston (BOS) .....	(90-170 incl) POLLA V312 PALEO V44 SIE V308 ORW V16 WOONS .....	1100-0300
	or	
	(70) PALEO V312 GOLDA V268 ENO V16 JFK V229 HFD V3 WOONS .....	1100-0300
Bridgeport (BDR) .....	KRANT V265 EMI V457 LRP V93 LHY V106 PWL V44 DENNA .....	1100-0300
	or	
	(90-170) POLLA V312 PALEO V44 SIE V139 RICED MAD193 KEYED .....	1100-0300
	or	
	(70) PALEO V312 GOLDA V268 ENO V16 JFK V229 BDR .....	1100-0300
Buffalo (BUF) .....	EMI V265 HAR V31 FQM V164 .....	1100-0300
Burlington (BTV) .....	KRANT V265 EMI V457 LRP V93 LHY V449 ALB ..	1100-0300
Butler (BTP) .....	KRANT V265 EMI V268 NESTO .....	1100-0300
Charleston (CRW) .....	LDN LDN275 V286 EKN V4 HVQ .....	1100-0300
Clarksburg (CKB) .....	LDN LDN275 V286 EKN CKB .....	1100-0300
Cleveland (CLE) .....	KRANT V265 V214 MRB V501 THS V469 JST V297 TALLS V10 YNG CXR .....	1100-0300
Concord (CON) .....	(90-170) POLLA V312 PALEO V44 SIE V139 HTO V308 ORW V14 GDM V39 .....	1100-0300
Detroit Metro-Wayne Co (DTW) .....	(Turbojet only) KRANT V265 V214 MRB V501 THS V469 JST EWC YNG V6 DJB GEMNI-STAR .....	
	or	
	(Non-turbojet only) KRANT V265 V214 MRB V501 THS V469 JST EWC YNG V6 DJB SKY SKY292 YQG197 LYNTN .....	1100-0200

Terminals	Route	Effective Times (UTC)
Detroit Satellites:		
Ann Arbor (ARB), Willow Run (YIP) .....	KRANT V265 V214 MRB V501 THS V469 JST EWC ERI .....	
Coleman A Young (DET), Pontiac (PTK), Windsor (CYQG) .....	KRANT V265 V214 MRB V501 THS V469 JST EWC YNG V6 V297 LLEE0 LLEE0-STAR .....	
Dover (AFB (DOV) .....	(70) PALEO V312 GOLDA V268 ENO DOV .....	1100-0300
Erie (ERI) .....	KRANT V265 V214 MRB JST CIP V276 .....	
Farmingdale (FRG) .....	(90-170) PALEO V44 DONIL V229 PANZE V44 CAMRN .....	
	or	
	(70) POLLA V312 GOLDA V268 ENO V16 JFK .....	1100-0300
	or	
	(90-170, less than 250 kts) PALEO V44 DONIL V229 ACY V184 ZIGGI FRG .....	
Greensboro (GSO) .....	(70-170 incl, non-jet) CSN V140 MOL V143 LYH V222 HENBY .....	0000-2359
Groton (GON) .....	(90-170) POLLA V312 PALEO V44 SIE V139 HTO HTO034 MONDI .....	1100-0300
	or	
	(70) POLLA V312 GOLDA V268 ENO V16 JFK V229 BDR MAD MAD126 MONDI .....	
Hagerstown (HGR) .....	V265 EMI EMI325 HGR089 .....	1100-0300
Harrisburg (MDT/CXY) .....	KRANT V265 EMI V265 .....	1100-0300
Hartford (HFD) .....	(90-170) POLLA V312 PALEO V44 SIE V139 RICED MAD193 MAD V1 .....	1100-0300
	or	
	(70) POLLA V312 GOLDA V268 ENO V16 JFK .....	
Islip (ISP) .....	(90-170) POLLA V312 PALEO V44 SIE V139 SARDI CCC .....	1100-0300
	or	
	(70) POLLA V312 GOLDA V268 ENO V16 JFK .....	1100-0300
Kennedy (JFK) .....	(90-170 incl, 250 kts or greater) POLLA V312 PALEO V44 DONIL V229 PANZE V44 CAMRN ....	1100-0300
	or	
	(90-170 incl, less than 250 kts) POLLA V312 PALEO V44 DONIL V229 V184 ZIGGI .....	1100-0300
La Guardia (LGA) .....	PALEO V44 AGARD KORRY-STAR .....	1100-0300
Martha's Vineyard (MVY) .....	(90-170) POLLA V312 PALEO V44 SIE V139 HTO V46 FLAPE .....	1100-0300
	or	
	(70) POLLA V312 GOLDA V268 ENO V16 JFK V229 BDR MAD V475 V188 GON V374 .....	1100-0300
Morgantown (MGW) .....	LDN V144 .....	1100-0300
Nantucket (ACK) .....	(90-170) POLLA V312 PALEO V44 SIE V139 HTO V46 .....	1100-0300
	or	
	(70) POLLA V312 GOLDA V268 ENO V16 JFK V229 BDR V475 MAD V475 V188 GON V374 MVY .....	1100-0300
Newark (EWR) .....	(advanced navigation, turbojets only) SWANN V445 DQO DYLIN-STAR .....	1100-0300
	or	
	(piston) SWANN V445 DQO V29 MXE ARD V214 METRO .....	1100-0300
	or	
	(turboprops) SWANN V445 DQO V479 RUUTH V123 RBV RBV005 OWBIE .....	1100-0300
Newburgh (SWF) .....	KRANT V265 EMI V457 LRP V93 LHY V408 V483 FILPS .....	1100-0300
New Haven (HVN) .....	(90-170) POLLA V312 PALEO V44 SIE V139 RICED MAD193 KEYED .....	1100-0300
	or	
	(70) POLLA V312 GOLDA V268 ENO V16 JFK V229 BDR .....	1100-0300
Norfolk (ORF) .....	DAILY V33 V286 STEIN .....	1100-0300

Terminals	Route	Effective Times (UTC)
Philadelphia (PHL) .....	(110 , jets) MITCH V445 DQO .....	1100-0300
	or	
	(Props to PHL and Satellites) PALEO V170 DQO ..	1100-0300
Pittsburgh (PIT) .....	KRANT V265 V214 MRB V214 GRV IHD .....	1100-0300
	NESTO-STAR .....	1100-0300
Portland (PWM) .....	(90-170) POLLA V312 PALEO V44 SIE V139 HTO .....	1100-0300
	ORW GDM CON CON061 NEETS .....	1100-0300
	or	
	(70) POLLA V312 GOLDA V268 ENO V16 JFK .....	1100-0300
	V229 BDR MAD V1 HFD V229 GDM V106 ENE .....	1100-0300
Poughkeepsie (POU) .....	KRANT V265 EMI V457 LRP V93 LHY V408 V483 .....	1100-0300
	FILPS .....	1100-0300
Providence (PVD) .....	(90-170) POLLA V312 PALEO V44 SIE V139 HTO .....	1100-0300
	HTO070 PVD195.....	1100-0300
	or	
	(90-170 advanced RNAV only) POLLA V312 .....	
	PALEO V44 SIE V139 HTO JORDAN .....	
	(RNAV)-STAR.....	1100-0300
Rochester (ROC) .....	KRANT V265 EMI V265 HAR V31 GIBBE .....	1100-0300
Rome (RME).....	KRANT V265 EMI V457 LRP V499 CFB UCA .....	1100-0300
Syracuse (SYR) .....	KRANT V265 HAR V31 FQM V423 CFB V29.....	1100-0300
Teterboro (TEB) .....	(advanced navigation, turbojets only) SWANN .....	
	JAIKE-STAR .....	1100-0400
	or	
	(turboprop) SWANN V445 DQO DQO029 V3 SBJ ..	1100-0400
White Plains (HPN) .....	(70) KRANT V265 EMI LRP ETX FJC BWZ SAX V39 .....	
	BREZY .....	
	or	
	(90-170) PALEO V44 SIE V139 RICED .....	
	RICED-STAR .....	1100-0300
	or	
	(70, less than 180 kts) POLLA V170 ODESA MXE .....	
	ARD V214 METRO V249 SAX V39 BREZY .....	1100-0300
Wilkes Barre/Scranton (AVP) .....	KRANT V265 EMI V457 LRP V93 LVZ .....	1100-0300
Windsor Locks (BDL) .....	(210 kts or less) KRANT V265 EMI V457 V93 LHY .....	
	V106 PWL V34 MOONI V58 JUDDS .....	1100-0300
	or	
	(90-170) POLLA V312 PALEO V44 SIE V139 HTO .....	
	V308 ORW V130.....	
	or	
	(70) POLLA V312 GOLDA V268 ENO V16 JFK .....	
	V229 BDR BDR014 JUDDS V419 BRISS BDL ...	1100-0300
<b>WINDSOR LOCKS (BDL)</b>		
Islip (ISP) .....	(110-170 incl) HFD V58 GON V308 BOROS CCC .	1000-0300
NE Philadelphia (PNE).....	(110-170, non-turbojet) HFD V58 THUMB HTO .....	
	V139 BRIGS CEDAR LAKE-STAR .....	1100-0300
	or	
	(110-170, water) BOS LUCOS SEY067 SEY HTO .....	
	V139 MANTA V276 ARD.....	1100-0300
	or	
	(90-170, non-turbojet) V292 SAGES V408 LHY .....	
	LVZ V613 FJC V149 MAZIE ARD .....	1100-0300
	or	
	(90-170, jets) V292 SAGES V408 LHY LVZ V29 .....	
	ETX V30 V149 MAZIE ARD.....	1100-0300
Newark (EWR) .....	(70-170 incl, 250 kts or less) SASHA V292 V489 .....	
	COATE .....	1100-0300
	or	
	(110-170 incl, more than 250 kts) SASHA V292 .....	
	V312 SAX .....	1100-0300
Philadelphia (PHL) .....	(110-170 incl, non-turbojet) HFD V58 THUMB .....	
	HTO V139 BRIGS ACY V184 OOD .....	1100-0300
	or	

Terminals	Route	Effective Times (UTC)
Trenton (TTN)	(60–170 incl, props less than 210 kts) SASHA V292 SAGES V408 LHY LVZ V29 SLATT V6 FJC V149 MAZIE .....	1100–0300
	or	
	(60–170 incl, props 210 kts plus) SASHA V292 SAGES V408 LHY LVZ V29 SLATT V6 FJC V149 MAZIE .....	1100–0300
	or	
	(60–170 incl, turbojets) SASHA V292 SAGES V408 LHY LVZ V147 MAZIE .....	1100–0300
	(110–170, water) BOS LUCOS SEY067 SEY HTO V139 MANTA V276 ARD .....	1100–0300
	or	
	(90–170, non-turbojet) V292 SAGES V408 LHY LVS V613 FJC V149 MAZIE ARD .....	1100–0300
	or	
	(90–170, jets) V292 SAGES V408 LHY LVS V29 ETX V30 V149 MAZIE ARD .....	1100–0300
Wilmington (ILG)	(110–170, non-turbojet) HFD V58 THUMB HTO V139 BRIGS ACY V184 OOD .....	1100–0300
	or	
	(110–170, non-turbojet) HFD V58 THUMB HTO V139 BRIGS CEDAR LAKE-STAR .....	1100–0300

### SPECIAL LOW ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Low Altitude IFR bi-directional routes for traffic overflying New York Metro Area:		
East of New York Metro Area—V139 .....		1100–0300
West of New York Metro Area—V93 .....		1100–0300
Low Altitude IFR bi-directional routes for traffic overflying Washington Metro Area:		
.....	HAR V377 MOL .....	1100–0300
.....	HAR V377 V38 GVE .....	1100–0300
.....	LRP V93 PXT .....	1100–0300
Low Altitude IFR single direction route:		
Southbound .....	MXE V474 V377 HGR .....	1100–0300
Low Altitude IFR traffic overflying Washington Metro Area from over ENO landing Charlottesville, VA or Shenandoah, VA:		
.....	ENO V213 GVE098 GVE thence direct CHO or SHD .....	1200–0200

### HIGH ALTITUDE

Terminals	Route	Effective Times (UTC)
<b>ALBANY (ALB)</b>		
Chicago O'Hare (ORD) .....	SYR J63 EHMAN YXU J547 FNT PAITN-STAR .....	1100–0300
Cincinnati (CVG) .....	(RNAV only) SYR JOSSY MAULL KODIE CTW TIGRR (RNAV)-STAR .....	
	or	
	(all others) SYR J29 KELIE SLT016 SLT SLT249 KODIE CTW081 CTW CINC-STAR .....	
Washington Dulles (IAD) .....	(Turbojets) J6 LRP DELRO-STAR .....	1100–0300
	or	
	(Turboprops) DNY LHY V106 SEG SEG-STAR .....	1100–0300
<b>ALLENTOWN (ABE)</b>		
Cincinnati (CVG) .....	(RNAV only) ETX SEG PSB MAULL KODIE CTW TIGRR (RNAV)-STAR .....	
	or	
	(all others) ETX SEG PSB PSB281 MAULL SLT249 KODIE CTW081 CTW CINC-STAR .....	
Detroit Metro-Wayne Co (DTW) .....	ETX J80 J518 DJB GEMNI-STAR .....	

Terminals	Route	Effective Times (UTC)
<b>ATLANTIC CITY (ACY)</b>		
Detroit Metro-Wayne Co (DTW) .....	V229 LEEAH V268 ENO V29 DQO PENSY J110 LEJOY J518 DJB GEMNI-STAR .....	
<b>BALTIMORE (BWI)</b> —See Washington/Baltimore Metro		
<b>BANGOR (BGR)</b>		
Cincinnati (CVG) .....	(RNAV only) SYR JOSSY MAULL KODIE CTW TIGRR (RNAV)-STAR..... or (all others) SYR J29 KELIE SLT016 SLT SLT249 KODIE CTW081 CTW CINCE-STAR .....	
<b>BINGHAMTON (BGM)</b>		
Cincinnati (CVG) .....	(RNAV only) CFB FQM PSB MAULL KODIE CTW TIGRR (RNAV)-STAR .....	
<b>BOSTON (BOS)</b>		
Atlanta (ATL) .....	GLYDE BAF J77 PTW J48 ODF WHINZ-STAR .....	1100-0300
	or (RNAV only) GLYDE BAF J77 PTW J48 ODF FLCON (RNAV)-STAR.....	1100-0300
Baltimore (BWI) .....	NELIE CMK J75 MXE V378 BAL .....	1100-0300
Boca Raton (BCT) .....	(Turbojets-GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 ORF ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR..... or (Water-Turbojets-GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO DIW AR19 AYBID CAYSL (RNAV)-STAR..... or (Turbojets) LUCOS SEY067 SEY HTO J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR or (Water-Turbojets) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL .....	
Charlotte (CLT) .....	BOS NELIE CMK J75 GVE LYH SUDSY (RNAV)-STAR.....	1100-0300
Chicago O'Hare (ORD) .....	MHT CAM SYR J63 EHMAN YXU J547 FNT PAITN-STAR .....	1100-0300
Cincinnati (CVG) .....	(RNAV only) GLYDE CTR HNK J49 PSB MAULL KODIE CTW TIGRR (RNAV)-STAR .....	
	or (all others) GLYDE CTR HNK J49 PSB PSB281 MAULL SLT249 KODIE CTW081 CTW CINCE-STAR .....	
Cleveland (CLE) .....	MHT CAM J547 SYR J29 KELIE BDF CXF .....	1100-0300
Dallas/Ft. Worth (DFW) .....	GLYDE BAF J77 SAX J6 LIT BYP .....	1100-0300
Dayton (DAY) .....	GLYDE BAF J77 SAX J80 AIR APE DANEI-STAR ....	1100-0300
Denver (DEN) .....	MHT CAM SYR J547 BUF J94 ONL J114 SNY LANDR-STAR .....	1100-0300
Detroit Metro-Wayne Co. (DTW) .....	MHT CAM J547 BUF BUF267 YQ0094 YQ0 SPICA-STAR .....	1100-0300
Detroit Satellites:		
Coleman A Young (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB) .....	MHT CAM J547 BUF YQ0 .....	1100-0300
Fort Lauderdale (FLL).....	(Turbojets-GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 ORF ISO J121 CHS J79 OMN FISEL (RNAV)-STAR .....	
	or	

Terminals	Route	Effective Times (UTC)
	(Water-Turbojets-GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO ILM AR21 CRANS FISEL (RNAV)-STAR.....	
	or	
	(Turbojets) LUCOS SEY067 SEY HTO J174 ORF ISO J121 CHS J79 OMN GISSH-STAR.....	
	or	
	(Water-Turbojets) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or	
	(Water-Turboprops-GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 ILM AR21 CRANS FISEL (RNAV)-STAR.....	
	or	
	(Turboprops) LUCOS SEY067 SEY HTO J174 ORF J121 CHS J79 OMN MLB BLUF-STAR.....	
	or	
	(Water-Turboprops) LUCOS SEY067 SEY HTO J174 ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
Fort Myers (RSW) .....	(WATER-Turbojets-GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO DIW ILM AR15 HIBAC SHFTY (RNAV)-STAR.....	1100-0300
Greensboro (GSO) .....	NELIE CMK J75 GVE LYH V222 HENBY .....	0000-2359
Houston George Bush Intctl (IAH) .....	(Turbojets-GPS or DME/DME-IRU equipped) GLYDE BAF J77 PTW J48 MOL J22 VUZ AEX TXMEX (RNAV)-STAR .....	1100-0300
	or	
	(non-advanced NAV only) GLYDE BAF J77 PTW J48 MOL J22 VUZ AEX DAS-STAR .....	1100-0300
Houston Hobby (HOU) .....	(GPS or DME/DME-IRU equipped) GLYDE BAF J77 PTW J48 MOL J22 VUZ AEX ROKIT-STAR.....	1100-0300
	or	
	(non-advanced NAV only) GLYDE BAF J77 PTW J48 MOL J22 VUZ AEX DAS-STAR .....	1100-0300
Indianapolis (IND) .....	GLYDE BAF J77 SAX J80 EMPTY DQN CLANG-STAR .....	1100-0300
Islip (ISP) .....	LUCOS SEY067 SEY V268 HTO V46 CCC .....	1100-0300
Kennedy (JFK) .....	LUCOS SEY067 SEY PARCH CCC ROBER .....	1100-0300
Los Angeles (LAX) .....	MHT CAM SYR J547 BUF J16 BAE DBQ J94 ONL J114 DVV J60 HEC DOWNE-STAR .....	1100-0300
	or	
	MHT CAM SYR J547 BUF J94 ECK J38 GRB ODI FSD J114 DVV J60 HEC CIVET-STAR .....	1100-0300
Memphis (MEM) .....	GLYDE BAF J77 SAX J6 BWG WLDER-STAR .....	1100-0300
Miami (MIA) .....	(Turbojets-GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 ORF ISO J121 CHS J79 OMN HILEY (RNAV)-STAR .....	
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO DIW AR22 JORAY HILEY (RNAV)-STAR.....	
	or	
	(Turbojets) LUCOS SEY067 SEY HTO J174 ORF ISO J121 CHS J79 OMN ANNEY-STAR .....	
	or	
	(Water-Turbojets) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO DIW AR22 JORAY OSOGY ENVOY YOSSI MILSY BOYUR HILEY KAINS .....	
	or	

Terminals	Route	Effective Times (UTC)
	(Turboprops) LUCOS SEY067 SEY HTO J174 ORF J121 CHS J79 OMN ANNEY-STAR .....	
Milwaukee (MKE) .....	MHT CAM SYR J547 BUF J94 ECK MKG V2	
	SUDDS .....	1100-0300
Minneapolis/St Paul (MSP) .....	MHT CAM SYR J547 BUF YWT J63 TVC J522 GRB EAU-STAR .....	1100-0300
Nashville (BNA) .....	GLYDE BAF J77 SAX J6 YOCKY GUITR-STAR .....	1100-0300
Newark (EWR) .....	(More than 250 kts) GLYDE V292 V213 SAX .....	1100-0300
	or	
New Orleans (MSY) .....	(250 kts or less) GLYDE V292 V489 COATE .....	1100-0300
Orlando Exec (ORL) .....	GLYDE BAF J77 PTW J48 MOL J22 MEI J31 .....	
	LUCOS SEY067 SEY HTO J174 ORF J121 CHS J79 OMN CORLL-STAR .....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Orlando Intl (MCO) .....	(Water-Turbojets) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO ILM AR15 HIBAC APOLO ORL.....	1100-0300
	or	
	LUCOS SEY067 SEY HTO J174 ORF J121 CHS J79 OMN BITHO-STAR .....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
	or	
	(GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 ORF J121 CHS J79 OMN CWRLD (RNAV)-STAR .....	1100-0400
Philadelphia (PHL) .....	LUCOS SEY067 SEY HTO J121 BRIGS VCN-STAR .....	1100-0300
Pittsburgh (PIT) .....	GLYDE CTR HNK HNK271 J190 SLT GRACE-STAR .....	1100-0300
Raleigh-Durham (RDU) .....	LUCOS SEY067 SEY HTO J174 SWL ARGAL-STAR .....	1000-0300
Salt Lake City (SLC) .....	MHT CAM SYR J547 BUF J16 BAE DBQ J94 OCS LHO-STAR.....	
San Francisco (SFO) .....	MHT CAM J547 SYR J547 BUF J94 ECK J38 GRB J106 GEP J70 ABR J32 FMG ILA PYE PYE-STAR .....	1100-0300
St Louis (STL) .....	GLYDE BAF J77 SAX J80 AIR J110 VHP VLA-STAR .....	
Tampa (TPA) .....	NELIE CMK J75 TAY LZARD-STAR .....	
Washington Dulles (IAD) .....	GLYDE BAF J77 SAX J6 LRP V143 MULRR AML ...	1100-0300
Washington Natl (DCA) .....	LUCOS SEY067 SEY HTO J174 ATR085 ATR V308 BILIT .....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 ATR085 ATR V308 LAFLN BILIT (RNAV)-STAR .....	1100-0300
West Palm Beach (PBI) .....	(Turbojets-GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 ORF ISO J121 CHS J79 OMN FRWAY (RNAV)-STAR .....	1100-0300
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO DIW AR19 AYBID FRWAY (RNAV)-STAR .....	1100-0300
	or	
	(Turbojets) LUCOS SEY067 SEY HTO J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR .....	1100-0300
	or	
	(Water-Turbojets) LUCOS SEY067 SEY HTO J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI .....	1100-0300



Terminals	Route	Effective Times (UTC)
<b>BRIDGEPORT (BDR)</b>		
Baltimore (BWI) .....	BEADS V139 SARDI RBV J230 J75 MXE V378 BAL .....	
Binghamton (BGM) .....	(Turbojets) NEION J223 CORDS CFB .....	
Boca Raton (BCT) .....	(Turbojets-GPS or DME/DME IRU equipped) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR .....	
	or (Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR .....	
	or (Water-Turbojets-GPS or DME/DME IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR19 AYBID CAYSL (RNAV)-STAR ..	
	or (Water-Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL .....	
Buffalo (BUF) .....	NEION J223 CORDS ULW ULW306 V164 .....	
	or (Turboprops) GAYEL J95 CFB V270 ULW ULW306 V164 .....	
Chicago O'Hare (ORD) .....	COATE J36 FNT PAITN-STAR .....	1100-0300
Dallas/Fort Worth (DFW) .....	BEADS V139 SARDI RBV J230 J6 LIT BYP .....	
Detroit Metro Wayne Co (DTW) .....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO SPICA-STAR .....	1100-0300
Detroit Satellites:		
Coleman A Young (DET), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB) .....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO .....	
Windsor (CYQG) .....	GAYEL J95 CFB CFB286 TRAAD J132 ULW306 KOOPR YQO .....	
Fort Lauderdale (FLL) .....	(Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN GISSH-STAR .....	
	or (Turboprops) BEADS CCC148 J174 ORF J121 CHS J79 OMN MLB BLUFI-STAR .....	
	or (Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN FISEL (RNAV)-STAR .....	
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR21 CRANS FISEL (RNAV)-STAR ...	
	or (Water-Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR21 CRANS HILL FATHR GISSH-STAR .....	
Ithaca (ITH) .....	(Turbojets) NEION J223 CORDS CFB V423 .....	
Miami (MIA, TMB, HST) .....	(Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN HILEY (RNAV)-STAR .....	
	or (Turboprops) BEADS CCC148 J174 ORF J121 CHS J79 OMN ANNEY-STAR .....	
	or (Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN ANNEY-STAR .....	
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR22 JORAY HILEY (RNAV)-STAR...	
	or	

Terminals	Route	Effective Times (UTC)
Montreal (CYUL) .....	(Water-Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR22 JORAY OSOGY ENVOY YOSSI MILSY BOYUR HILEY KAINS .....	
Orlando Executive (ORL) .....	SOARS V419 JUDDS CAM J222 PLB V91 NAPEE BEADS CCC148 J174 ORF J121 CHS J79 OMN CORLL-STAR .....	1100-0300
	or (GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Orlando Intl (MCO) .....	BEADS CCC148 J174 ORF J121 CHS J79 OMN BITHO-STAR .....	1100-0300
	or (Water-Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR15 HIBAC APOLO ORL .....	1100-0300
	or (GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ORF J121 CHS J79 OMN CWRLD (RNAV)-STAR .....	1100-0400
	or (GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Pittsburgh (PIT) .....	(Turbojets) COATE J36 J190 SLT GRACE-STAR ... or (Turboprops) GAYEL V374 V58 LHY J36 J217 ETG V226 CIP GRACE-STAR .....	
Raleigh/Durham (RDU) .....	BEADS CCC148 J174 SWL ARGAL-STAR .....	
Richmond (RIC) .....	BEADS CCC148 J174 SWL V139 CCV HPW .....	1100-0200
Rochester (ROC) .....	(Turbojets) NEION J223 CORDS ULW V31 GIBBE . (Turbojets) NEION J223 CORDS CFB V29 .....	
Syracuse (SYR) .....	BEADS V139 SARDI RBV J230 J75 TAY LZARD-STAR .....	
Tampa (TPA) .....	or (GPS or DME/DME-IRU equipped) BEADS V139 SARDI RBV J230 J75 TAY DADES (RNAV)-STAR. BEADS V139 SARDI RBV RBV289 V457 LRP V143 MULRR AML .....	
Washington Dulles (IAD) .....	BEADS CCC148 J174 ATR085 ATR V308 BILIT .... or (GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ATR085 ATR V308 LAFLN BILIT (RNAV)-STAR .....	
Washington Natl (DCA) .....	(Water-Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR19 AYBID FRWAY (RNAV)-STAR.. or (Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN FRWAY (RNAV)-STAR .....	
West Palm Beach (PBI) .....	or (Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR .....	
	or (Water-Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI.....	
<b>BUFFALO (BUF)</b>		
Cincinnati (CVG) .....	(RNAV only) BUF JHW MAULL KODIE CTW TIGRR (RNAV)-STAR .....	
	or (all others) BUF JHW JHW194 MAULL SLT249 KODIE CTW081 CTW CINCE-STAR .....	

Terminals	Route	Effective Times (UTC)
Detroit Satellites: Coleman A Young (DET), Pontiac (PTK), Windsor (CYQG), Ann Arbor (ARB), Willow Run (YIP) .....	YXU PICES-STAR .....	
Kennedy (JFK) .....	V33 J70 LVZ LENDY-STAR .....	
La Guardia (LGA) .....	(Above 250 kts) V14 GEE RKA-STAR .....	1110-0300
	or	
	(250 kts or less) V14 BEEPS J522 EXTOL	
	RKA292 RKA NOBBI-STAR .....	
Newark (EWR) .....	(Above 250 kts) V14 BEEPS J522 HNK	
	SHAFF-STAR .....	
	or	
	(250 kts or less) V14 BEEPS J522 HNK V167	
	WEARD V489 COATE .....	
Philadelphia (PHL) .....	V33 BFD PSB HAR V210 BUNTS .....	
<b>BURLINGTON (BTW)</b>		
Chicago O'Hare (ORD) .....	ART YSO J546 ECK TVC PAITN-STAR .....	1100-0300
Cincinnati (CVG) .....	(RNAV only) SYR J29 JOSSY MAULL KODIE CTW	
	TIGRR-STAR .....	
	or	
	(all others) SYR J29 KELIE SLT SLT249 KODIE	
	CTW081 CTW CINCE-STAR .....	
La Guardia (LGA) .....	ALB PWL IGN V157 .....	1100-0300
Newark (EWR) .....	ALB V213 SAX .....	1100-0300
Philadelphia (PHL) .....	(Turbojets only) ALB DNY SLATT-STAR .....	
Pittsburgh (PIT) .....	ALB J49 HNK HNK271 J190 SLT GRACE-STAR ...	1100-0300
Washington Dulles (IAD) .....	(Turbojets) ALB J6 LRP DELRO-STAR .....	1100-0300
	or	
	(Turboprops) ALB LHY V106 SEG SEG-STAR .....	1100-0300
<b>CHARLESTON (CRW)</b>		
Cleveland (CLE) .....	TVT KEATN-STAR .....	
Houston George Bush Intcntl (IAH) .....	(Turbojets-GPS or DME/DME-IRU equipped) LIT	
	J180 SWB TXMEX (RNAV)-STAR .....	
	or	
	(non-advanced NAV only) LIT J180 SWB	
	DAS-STAR .....	
Houston Hobby (HOU) .....	(GPS or DME/DME-IRU equipped) LIT J180 SWB	
	ROKIT (RNAV)-STAR .....	
	or	
	(non-advanced NAV only) LIT J180 SWB	
	DAS-STAR .....	
<b>CHARLOTTESVILLE (CHO)</b>		
Cincinnati (CVG) .....	HNN090/50 GAVNN .....	
	or	
	(RNAV only-at or below FL220) HNN GAVNN	
	(RNAV)-STAR .....	
	or	
	(all others-at or above FL240) HNN090/50 HNN	
	JAVIT-STAR .....	
	or	
	(all others-at or below FL220) HNN JAVIT-STAR...	
<b>HARRISBURG (MDT)</b>		
Chicago (ORD) .....	HAR V33 MCMAN J64 MAINE ZANLA WATSN	
	(RNAV)-STAR .....	
Cincinnati (CVG) .....	MRB J6 COLNS JAVIT-STAR .....	
<b>ITHACA (ITH)</b>		
Detroit Satellites: Coleman A Young (DET), Pontiac (PTK), Windsor (CYQG), Ann Arbor (ARB), Willow Run (YIP) .....	YXU PICES-STAR .....	
<b>LONG ISLAND (Mac Arthur) (ISP)</b>		
Baltimore (BWI) .....	BEADS EMJAY J174 ZIZZI ATROB5 ATR V308	
	BILIT .....	
Binghamton (BGM) .....	(Turbojets) NEION J223 CORDS CFB .....	

Terminals	Route	Effective Times (UTC)
Boca Raton (BCT).....	(Turbojets–GPS or DME/DME–IRU equipped) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN CAYSL (RNAV)–STAR..... or (Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN TUXXI–STAR..... or (Water–Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL..... or (Water–Turbojets–GPS or DME/DME–IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR19 AYBID CAYSL (RNAV)–STAR ..	
Boston (BOS) .....	MERIT ORW ORW–STAR .....	
Buffalo (BUF).....	(Turbojets) NEION J223 CORDS ULW ULW306 V164 .....	
	or (Turboprops) GAYEL J95 CFB V270 ULW ULW306 V164 .....	
Chicago O'Hare (ORD) .....	COATE J36 FNT PAITN–STAR.....	1100–0300
Cincinnati (CVG).....	(RNAV only) BEADS V139 SARDI RBV J230 SAAME J6 COLNS GAVNN (RNAV)–STAR .....	
	or (all others) BEADS V139 SARDI RBV J230 SAAME J6 COLNS JAVIT–STAR .....	
Dallas/Ft Worth (DFW) .....	BEADS V139 SARDI RBV J230 J6 LIT BYP .....	
Detroit Metro Wayne Co (DTW).....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO SPICA–STAR .....	
Detroit Satellites:		
Coleman A Young (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB) .....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO .....	
Fort Lauderdale (FLL).....	(Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN GISSH–STAR..... or (Turboprops) BEADS CCC148 J174 ORF J121 CHS J79 OMN MLB BLUF–STAR..... or (Turbojets–GPS or DME/DME–IRU equipped) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN FISEL (RNAV)–STAR .....	
	or (Water–Turboprops) BEADS CCC148 J174 ILM AR21 CRANS HIILL FATHR GISSH–STAR .....	
	or (Water–Turboprops–GPS or DME/DME–IRU equipped) BEADS CCC148 J174 ILM AR21 CRANS FISEL (RNAV)–STAR .....	
	or (Water–Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR21 CRANS HIILL FATHR GISSH–STAR .....	
	or (Water–Turbojets–GPS or DME/DME–IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR21 CRANS FISEL (RNAV)–STAR...	
Fort Myers (RSW) .....	(WATER–Turbojets) BEADS CCC J174 SWL CEBEE WETRO ILM AR15 HIBAC SHFTY (RNAV)–STAR...	
Ithaca (ITH) .....	(Turbojets) NEION J223 CORDS CFB V423 .....	
Miami Metro Area:		
Miami (MIA, TMB, HST) .....	(Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN ANNEY–STAR .....	
	or	



Terminals	Route	Effective Times (UTC)
<b>MANCHESTER (MHT)</b>		
Atlanta (ATL) .....	(Advanced RNAV only) BAF J77 SAX J77 PTW J48 ODF .....	1100-0300
	or	
	(Advanced RNAV only) COTEE (RNAV)-DP BAF J77 SAX J77 PTW J48 ODF FLCON (RNAV)-STAR ....	1100-0300
	or	
	(All others) PSM PSM216/37 COTEE BAF J77 SAX J77 PTW J48 ODF WHINZ-STAR .....	1100-0300
Baltimore (BWI) .....	(Advanced RNAV only) COTEE (RNAV)-DP BDL CMK J75 MXE V378 BAL .....	1100-0300
	or	
	(All others) PSM PSM216/37 COTEE BDL CMK J75 MXE V378 BAL .....	1100-0300
Chicago O'Hare (ORD) .....	CAM SYR J63 EHMAN YXU J547 FNT PAITN-STAR	
Cincinnati (CVG).....	(RNAV only) CAM J547 SYR JOSSY MAULL KODIE CTW TIGRR-STAR.....	
	or	
	(all others) CAM J547 SYR J29 KELIE SLT016 SLT SLT249 KODIE CTW081 CTW CINCE-STAR .....	
Detroit Satellites:		
Coleman A Young (DET), Pontiac (PTK), Ann Arbor (ARB), Windsor (CYQG), Willow Run (YIP).....	SYR J547 YXU PICES-STAR .....	
Orlando (MCO).....	(Advanced RNAV only) COTEE (RNAV)-DP BDL CMK J75 CAE J75 DUNKN AMG LEESE-STAR....	1100-0300
	or	
	(All others) PSM PSM216/37 COTEE BDL CMK J75 CAE J75 DUNKN AMG LEESE-STAR .....	1100-0300
Tampa (TPA).....	(Advanced RNAV only) COTEE (RNAV)-DP BDL CMK J75 TAY DADES (RNAV)-STAR .....	1100-0300
	or	
	(All others) PSM PSM216/37 COTEE BDL CMK J75 TAY DADES (RNAV)-STAR .....	1100-0300
Wash Dulles (IAD) .....	(Advanced RNAV only) COTEE (RNAV)-DP BAF J77 SAX J6 LRP DELRO-STAR .....	1100-0300
	or	
	(All others) PSM PSM216/37 COTEE BAF J77 SAX J6 LRP DELRO-STAR .....	1100-0300
Wash Natl (DCA) .....	(Advanced RNAV only) COTEE (RNAV)-DP BDL CMK J75 MXE V378 BAL .....	1100-0300
	or	
	(All others) PSM PSM216/37 COTEE BDL CMK J75 MXE V378 BAL .....	1100-0300
<b>MONTREAL (CYUL)</b>		
Cincinnati (CVG).....	(RNAV only) YOW J546 YSO MAULL KODIE CTW TIGRR (RNAV)-STAR .....	
	or	
	(all others) YOW J546 YSO YYZ JHW JHW194 MAULL SLT249 KODIE CTW081 CTW CINCE-STAR .....	
Detroit Metro-Wayne Co (DTW) .....	YOW J546 .....	
Kennedy (JFK).....	V282 J524 BUGSY J570 ALB IGN IGN-STAR .....	
La Guardia (LGA).....	V282 J524 BUGSY J570 ALB PWL IGN V157 .....	
<b>MORRISTOWN (MMU)</b>		
Marco Isle (MKY) .....	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC SHFTY (RNAV)-STAR .....	
Naples (APF) .....	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC SHFTY (RNAV)-STAR .....	
<b>NEWBURGH (SWF)</b>		
Cincinnati (CVG).....	(RNAV only) WEARD LHY J36 DGRAF J49 PSB MAULL KODIE CTW TIGRR (RNAV)-STAR .....	

Terminals	Route	Effective Times (UTC)
	or (RNAV only) WEARD LHY J36 DGRAF J49 PSB MMJ CTW TIGRR (RNAV)-STAR .....	
	or (all others) WEARD LHY J36 DGRAF J49 PSB PSB281 MAULL SLT249 KODIE CTW081 CTW CINCE-STAR .....	
<b>NEW HAVEN (HVN)</b>		
Baltimore (BWI) .....	BEADS V139 SARDI RBV J230 J75 MXE V378 BAL .....	
Binghamton (BGM) .....	(Turbojets) NEION J223 CORDS CFB .....	
Boca Raton (BCT).....	(Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR .....	
	or (Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR.....	
	or (Water-Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL .....	
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR19 AYBID CAYSL (RNAV)-STAR ..	
Buffalo (BUF).....	(Turbojets) NEION J223 CORDS ULW ULW306 V164 .....	
	or (Turboprops) GAYEL J95 CFB V270 ULW ULW306 V164 .....	
Chicago O'Hare (ORD) .....	COATE J36 FNT PAITN-STAR .....	1100-0300
Dallas/Ft Worth (DFW).....	BEADS V139 SARDI RBV J230 J6 LIT BYP .....	
Detroit Metro Wayne Co (DTW).....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO SPICA-STAR .....	1100-0300
Detroit Satellites:		
Coleman A Young (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB) .....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO .....	1100-0300
Fort Lauderdale (FLL).....	(Water-Turboprops) BEADS CCC148 J174 ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or (Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN GISSH-STAR.....	
	or (Turboprops) BEADS CCC148 J174 ORF J121 CHS J79 OMN MLB BLUFI-STAR.....	
	or (Water-Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR21 CRANS FISEL (RNAV)-STAR...	
	or (Water-Turboprops-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ILM AR21 CRANS FISEL (RNAV)-STAR .....	
	or (Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN FISEL (RNAV)-STAR .....	
Ithaca (ITH) .....	(Turbojets) NEION J223 CORDS CFB V423 .....	
Miami (MIA).....	(Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN ANNEY-STAR .....	

Terminals	Route	Effective Times (UTC)
	or (Turboprops) BEADS CCC148 J174 ORF J121 CHS J79 OMN ANNEY-STAR .....	
	or (Water-Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR22 JORAY OSOGY ENVOY YOSSI MILSY BOYUR HILEY KAINS .....	
	or (Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN HILEY (RNAV)-STAR .....	
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR22 JORAY HILEY (RNAV)-STAR ...	
Montreal (CYUL).....	SOARS V419 JUDDS CAM J222 PLB PLB-STAR ...	
Orlando Executive (ORL).....	(Turbojets) BEADS CCC148 J174 ORF J121 CHS J79 OMN CORLL-STAR .....	1100-0300
	or (Water-Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR15 HIBAC APOLO ORL .....	
	or (GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Orlando Intl (MCO).....	(Turbojets) BEADS CCC148 J174 ORF J121 CHS J79 OMN BITHO-STAR .....	1100-0300
	or (GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ORF J121 CHS J79 OMN CWRLD (RNAV)-STAR .....	1100-0400
	or (GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Pittsburgh (PIT).....	(Turbojets) COATE J36 J190 SLT GRACE-STAR ...	
	or (Turboprops) GAYEL V374 V58 LHY J36 J217 ETG V226 CIP GRACE-STAR .....	
Raleigh/Durham (RDU) .....	BEADS CCC148 J174 SWL ARGAL-STAR .....	
Richmond (RIC).....	BEADS CCC148 J174 SWL V139 CCV HPW .....	
Rochester (ROC) .....	GAYEL J95 CFB V252 GIBBE .....	
Syracuse (SYR) .....	(Turbojets) NEION J223 CORDS CFB V29 .....	
Tampa (TPA).....	BEADS V139 SARDI RBV J230 J75 TAY LZARD-STAR .....	
	or (GPS or DME/DME-IRU equipped) BEADS V139 SARDI RBV J230 J75 TAY DADES (RNAV)-STAR.	
Washington Dulles (IAD).....	BEADS V139 SARDI RBV RBV289 V457 LRP V143 MULRR AML .....	
Washington Natl (DCA).....	BEADS CCC148 J174 ATR085 ATR V308 BILIT ...	
	or (GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ATR085 ATR V308 LAFLN BILIT (RNAV)-STAR.....	
West Palm Beach (PBI) .....	(Water-Turbojets) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI.....	
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 SWL CEBEE WETRO DIW AR19 AYBID FRWAY (RNAV)-STAR..	
	or (Turbojets-GPS or DME/DME-IRU equipped) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN FRWAY (RNAV)-STAR .....	



Terminals	Route or	Effective Times (UTC)
	(Turbojets) BEADS CCC148 J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR.....	
<b>NEW YORK METRO AREA</b>		
<b>From KENNEDY (JFK) only</b>		
Atlanta (ATL) .....	RBV J230 J48 ODF WHINZ-STAR .....	
	or	
	(RNAV only) RBV J230 J48 ODF FLCON RNAV-STAR .....	
	or	
Augusta (AGS) .....	RBV J230 J48 ODF WHINZ-STAR .....	1100-0300
Baltimore (BWI) .....	RBV J230 J75 GVE J37 SPA .....	
Binghamton (BGM) .....	RBV RBV274 MXE056 MXE V378 BAL .....	
Boca Raton (BCT).....	(Turbojets) NEION J223 CORDS CFB .....	
	(Turbojets-GPS or DME/DME-IRU equipped) WAVEY EMJAY J174 ORF ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR .....	
	or	
	(Turbojets) WAVEY EMJAY J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR.....	
	or	
	(Water-Turbojets) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL .....	
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR19 AYBID CAYSL (RNAV)-STAR ..	
Buffalo (BUF).....	(Turbojets) NEION J223 CORDS ULW ULW306 V164 .....	
	or	
	(Turboprops) GAYEL J95 CFB V270 ULW ULW306 V164 .....	
Burlington (BTV).....	GREKI V419 JUDDS CAM .....	
Charleston (CHS) .....	WAVEY EMJAY J174 SWL J121 .....	
Charlotte (CLT) .....	RBV J230 J75 GVE LYH MAJIC-STAR .....	
Charlottesville (CHO) .....	RBV J230 J75 GVE .....	
Chicago Midway (MDW) .....	RBV J64 FWA GSH-STAR .....	
Chicago O'Hare (ORD) .....	COATE J36 FNT PAITN-STAR .....	0000-2359
Cincinnati (CVG).....	(RNAV only) RBV J230 SAAME J6 COLNS GAVNN (RNAV)-STAR .....	
	or	
	(all others) RBV J230 SAAME J6 COLNS JAVIT-STAR .....	
Cleveland (CLE) .....	RBV J64 PSB115 PSB PSB292 YNG CXR.....	
Columbia (CAE).....	RBV J230 J75 .....	
Columbus (CMH).....	RBV J230 AIR AIR260 BREMN .....	
Dallas/Ft. Worth (DFW) .....	RBV J230 J6 LIT BYP .....	
Dayton (DAY) .....	RBV J230 AIR APE DANEI-STAR .....	
Denver (DEN).....	RBV J230 AIR APE J178 FWA JOT J60 IOW J10 LBF SAYGE-STAR .....	
Detroit Metro-Wayne Co (DTW).....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO SPICA-STAR .....	
Detroit Satellites:		
(DET), Windsor .....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO .....	
(CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB) .....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQG .....	
Fayetteville (FAY) .....	RBV J230 J75 GVE SBV RDU .....	
Ft Lauderdale (FLL, FXE, OPF) .....	(Water-Turbojets) WAVEY EMJAY J174 SWL CEBEE WETRO ILM AR21 CRANS HILL FATHR GISSH-STAR .....	
	or	

Terminals	Route	Effective Times (UTC)
	(Water–Turbojets–GPS or DME/DME–IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO ILM AR21 CRANS FISEL (RNAV)–STAR... or (Turbojets) WAVEY EMJAY J174 ORF ISO J121 CHS J79 OMN GISSH–STAR..... or (Turbojets–GPS or DME/DME–IRU equipped) WAVEY EMJAY J174 ORF ISO J121 CHS J79 OMN FISEL (RNAV)–STAR ..... or (Turboprops) WAVEY EMJAY J174 ORF J121 CHS J79 OMN MLB BLUFI–STAR ..... or (Water–Turboprops) WAVEY EMJAY J174 ILM AR21 CRANS HILL FATHR GISSH–STAR ..... or (Water–Turboprops–GPS OR DME/DME–IRU equipped) WAVEY EMJAY J174 ILM AR21 CRANS FISEL (RNAV)–STAR ..... Fort Myers (FMY, RSW) ..... (GPS or DME/DME–IRU equipped) RBV J230 J75 GSO J75 DUNKN SHFTY (RNAV)–STAR ..... or (WATER–Turbojets) WAVEY EMJAY J174 SWL CEBEE WETRO ILM AR15 HIBAC SHFTY (RNAV)–STAR..... Greensboro (GSO) ..... RBV J230 J75 GVE LYH V222 HENBY ..... 0000–2359 Houston George Bush Intcntl (IAH) ..... (non–advanced NAV only) RBV J230 J48 MOL J22 VUZ AEX DAS–STAR..... or (Turbojets–GPS or DME/DME–IRU equipped) RBV J230 J48 MOL J22 VUZ AEX TXMEX (RNAV)–STAR..... Houston Hobby (HOU)..... (non–advanced NAV only) RBV J230 J48 MOL J22 VUZ AEX DAS–STAR..... or (GPS or DME/DME–IRU equipped) RBV J230 J48 MOL J22 VUZ AEX ROKIT–STAR ..... Indianapolis (IND) ..... RBV J230 AIR J80 EMPTY DQN CLANG–STAR ..... Ithaca (ITH) ..... (Turbojets) NEION J223 CORDS CFB V423 ..... Jacksonville (JAX)..... WAVEY EMJAY J174 CHS BRUNSWICK–STAR ..... Kansas City (MKC) ..... RBV J230 AIR J80 SPI BRAYMER–STAR..... Knoxville (TYS)..... RBV J230 J48 MOL J22 ..... Los Angeles (LAX) ..... RBV J230 AIR J80 MCI J24 SLN J102 ALS J44 RSK ..... Louisville (SDF)..... RBV J230 J6 HVQ J6 YOCKY DARBY–STAR ..... Marco Island (MKY) ..... (GPS or DME/DME–IRU equipped) RBV J230 J75 GSO J75 DUNKN SHFTY (RNAV)–STAR ..... Memphis (MEM)..... RBV J230 J6 BWG WLDER–STAR ..... Miami (MIA, TMB, HST) ..... (Turbojets–GPS or DME/DME–IRU equipped) WAVEY EMJAY J174 ORF ISO J121 CHS J79 OMN HILEY (RNAV)–STAR ..... or (Water–Turbojets–GPS or DME/DME–IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY HILEY (RNAV)–STAR... or (Water–Turbojets) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY OSOGY ENVOY YOSSI MILSY BOYUR HILEY KAINS ..... or (Turbojets) WAVEY EMJAY J174 ORF ISO J121 CHS J79 OMN ANNEY–STAR ..... or (Turboprops) WAVEY EMJAY J174 ORF J121 CHS J79 ANNEY–STAR.....	

Terminals	Route	Effective Times (UTC)
Milwaukee (MKE) .....	COATE J36 FNT MKG V2 SUDDS .....	
Minneapolis (MSP) .....	GAYEL J95 BUF YWT J63 TVC J522 GRB EAU-STAR .....	
Montreal (CYUL) .....	GREKI V419 JUDDS CAM J222 PLB PLB-STAR .....	
Naples (APF) .....	(Turbojets-GPS or DME/DME-IRU equipped) RBV J230 J75 GSO J75 DUNKN SHFTY (RNAV)-STAR .....	
Nashville (BNA) .....	RBV J230 J6 YOCKY GUITR- STAR .....	
New Orleans (MSY) .....	RBV J230 J48 MOL J22 MEI J31 .....	
Norfolk (ORF) .....	WAVEY EMJAY J174 SWL V139 CCV .....	
Orlando Executive (ORL) .....	(Turbojets) WAVEY EMJAY J174 ORF J121 CHS J79 OMN CORLL-STAR .....	1100-0300
	or (GPS or DME/DME-IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Orlando Intl (MCO) .....	(Turbojets) WAVEY EMJAY J174 ORF J121 CHS J79 OMN BITHO-STAR .....	1100-0300
	or (Water-Turbojets) WAVEY EMJAY J174 SWL CEBEE WETRO ILM AR15 HIBAC APOLO ORL..... or (GPS or DME/DME-IRU equipped) WAVEY EMJAY J174 ORF J121 CHS J79 OMN CWRLD (RNAV)-STAR .....	1100-0400
	or (GPS or DME/DME-IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Phoenix (PHX) .....	RBV J230 AIR J110 STL J19 ZUN FOSSL-STAR .....	
Pittsburgh (PIT) .....	(Turbojets) COATE J36 J190 SLT GRACE-STAR ... or (Turboprops) GAYEL V374 V58 LHY J36 J217 ETG V226 CIP GRACE-STAR .....	
Raleigh/Durham (RDU) .....	WAVEY EMJAY J174 SWL ARGAL-STAR .....	
Richmond (RIC) .....	WAVEY EMJAY J174 SWL V139 CCV HPW .....	
Roanoke (ROA) .....	RBV J230 J48 MOL .....	
Rochester (ROC) .....	(Turbojets) NEION J223 CORDS ULW V31 GIBBE .	
Salt Lake City (SLC) .....	GAYEL J95 BUF J16 BAE DBQ J94 OCS OGD .....	
San Francisco (SFO) .....	GAYEL J95 BUF J16 ECK J38 GRB J106 GEP J70 ABR J32 FMG GOLDEN GATE-STAR .....	
Sarasota/Bradenton (SRQ) .....	RBV J230 J75 TAY J85 GNV LAL .....	
Savannah (SAV) .....	WAVEY EMJAY J174 ORF J121 CHS .....	
St. Louis (STL) .....	RBV J230 AIR J110 VHP VLA-STAR .....	
St. Petersburg (PIE) .....	RBV J230 J75 TAY LZARD-STAR .....	
Syracuse (SYR) .....	(Turbojets) NEION J223 CORDS CFB V29 .....	
Tampa (TPA) .....	RBV J230 J75 TAY LZARD-STAR .....	
	or (GPS or DME/DME-IRU equipped) RBV J230 J75 TAY DADES (RNAV)-STAR .....	
Toronto (CYYZ) .....	GAYEL J95 BUF V36 .....	
Washington Dulles (IAD) .....	RBV RBV289 V457 LRP V143 MULRR AML .....	
Washington Natl (DCA) .....	(Turbojets only FL 180-FL 220) WAVEY EMJAY J174 ZIZZI ATR085 ATR V308 BILIT DCA .....	
	or (Turbojets only/FL180-FL220/GPS or DME/DME-IRU equipped) WAVEY EMJAY J174 ZIZZI ATR085 ATR V308 LAFLN BILIT (RNAV)-STAR .....	
West Palm Beach (PBI) .....	(Water-Turbojets-GPS or DME/DME-IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR19 AYBID FRWAY (RNAV)-STAR.. or (Turbojets) WAVEY EMJAY J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR .....	
	or	

Effective  
Times  
(UTC)

## Terminals

## Route

	(Turbojets–GPS or DME/DME–IRU equipped) WAVEY EMJAY J174 ORF ISO J121 CHS J79 OMN FRWAY (RNAV)–STAR .....
	or
	(Water–Turbojets) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI.....
From <b>LA GUARDIA (LGA)</b> only	
Akron/Canton (CAK) .....	ELIOT J60 PSB PSB292060 YNG V72 ACO .....
Allegheny County (AGC).....	ELIOT J80 VINSE NESTO–STAR .....
Atlanta (ATL) .....	LANNA J48 ODF WHINZ–STAR .....
	or
	(RNAV only) LANNA J48 ODF FLCON (RNAV)–STAR
Augusta (AGS) .....	BIGGY J75 GVE J37 SPA .....
Baltimore (BWI) .....	BIGGY J75 MXE V378 BAL .....
Binghamton (BGM) .....	(Turbojets) NEION J223 CORDS CFB .....
Birmingham (BHM) .....	LANNA J48 MOL J22 VXV VUZ .....
Boca Raton (BCT).....	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN TUXXI–STAR.....
	or
	(Turbojets–GPS or DME/DME–IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN CAYSL (RNAV)–STAR .....
	or
	(Water–Turbojets) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL .....
	or
	(Water–Turbojets–GPS or DME/DME–IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR19 AYBID CAYSL (RNAV)–STAR ..
Boston (BOS) .....	MERIT ORW ORW–STAR .....
Buffalo (BUF).....	(Turbojets) NEION J223 CORDS ULW ULW306 V164 .....
	or
	(Turboprops) COATE J36 ULW141 ULW ULW306 V164 .....
Burlington (BTV).....	GREKI V419 JUDDS CAM .....
Charleston (CHS) .....	(Turbojets) WHITE J209 SBY J79 KATZN TYI CHS
Charleston (CRW) .....	PARKE J6 HVQ .....
Charlotte (CLT) .....	BIGGY J75 GVE LYH MAJIC-STAR .....
Charlottesville (CHO) .....	BIGGY J75 GVE .....
Chattanooga (CHA).....	LANNA J48 MOL J22 VXV .....
Chicago Midway (MDW).....	ELIOT J60 GSH GSH-STAR .....
Chicago O'Hare (ORD) .....	COATE J36 FNT PAITN–STAR .....
Cincinnati (CVG) .....	(RNAV only) PARKE J6 COLNS GAVNN (RNAV)–STAR .....
	or
	(all others) PARKE J6 COLNS JAVIT–STAR .....
Cleveland (CLE) .....	ELIOT J60 PSB PSB292 YNG CXR .....
Columbus (CMH).....	ELIOT J80 AIR AIR260 BREMN .....
Dallas/Fort Worth (DFW) .....	PARKE J6 LIT BYP .....
Dayton (DAY) .....	ELIOT J80 AIR APE DANEI–STAR .....
Daytona Beach (DAB) .....	WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN .....
Dekalb/Peachtree (PDK) .....	LANNA J48 ODF AWSON-STAR .....
Denver (DEN).....	ELIOT J60 IOW J10 LBF SAYGE–STAR .....
Detroit Metro Wayne Co (DTW).....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO SPICA–STAR .....
Detroit Satellites:	
Ann Arbor (ARB), Coleman A Young (DET), Pontiac (PTK), Willow Run (YIP), Windsor (CYQG) .....	GAYEL J95 BUF J547 YXU PICES–STAR .....
	or
Windsor (CYQG) .....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQG .....

0000–2359

Terminals	Route	Effective Times (UTC)
Fayetteville (FAY) .....	BIGGY J75 GVE SBV RDU .....	0000-2359
Fort Lauderdale (FLL, FXE, OPF) .....	(Water-Turbojets) WHITE J209 SBY KEMPR ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or	
	(Water-Turbojets GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR21 CRANS FISEL (RNAV)-STAR .....	
	or	
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN GISSH-STAR.....	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS OMN FISEL (RNAV)-STAR .....	
	or	
	(Turboprops) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 VRB BLUFI-STAR.....	
	or	
	(Water-Turboprops) WHITE J209 SBY KEMPR ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or	
	(Water-Turboprops GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR21 CRANS FISEL (RNAV)-STAR .....	
Fort Myers (FMY, RSW) .....	(GPS or DME/DME-IRU equipped) BIGGY J75 GSO J75 DUNKN SHFTY (RNAV)-STAR .....	
	or	
	(WATER-Turbojets-GPS or DME/DME-IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO ILM AR15 HIBAC SHFTY (RNAV)-STAR...	
Fort Wayne (FWA) .....	ELIOT J80 SUZIE J64 .....	
Greensboro (GSO) .....	BIGGY J75 GVE LYH V222 HENBY .....	
Greer (GSP) .....	BIGGY J75 GVE J37 SPA .....	
Hot Springs (HSP) .....	LANNA J48 EMI CSN V140 MOL .....	
Houston George Bush Intcntl (IAH) .....	(non-advanced NAV only) LANNA J48 MOL J22 VUZ AEX DAS-STAR .....	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped) LANNA J48 MOL J22 VUZ AEX TXMEX (RNAV)-STAR .....	
Houston Hobby (HOU) .....	(GPS or DME/DME-IRU equipped) LANNA J48 MOL J22 VUZ AEX ROKIT (RNAV)-STAR .....	
	or	
	(non-advanced NAV only) LANNA J48 MOL J22 VUZ AEX DAS-STAR .....	
Indianapolis (IND) .....	ELIOT J80 EMPTY DQN CLANG-STAR .....	
Ithaca (ITH) .....	(Turbojets) NEION J223 CORDS CFB V423 .....	
Jacksonville (JAX) .....	(Turbojets) WHITE J209 SBY J79 CHS SSI-STAR .....	
Kansas City (MKC) .....	ELIOT J80 SPI BQS-STAR .....	
Knoxville (TYS) .....	LANNA J48 MOL J22 .....	
Lewisburg (LWB) .....	LANNA J48 EMI CSN V140 MOL .....	
Lexington (LEX) .....	PARKE J6 HVQ .....	
Louisville (SDF) .....	PARKE J6 HVQ J6 YOCKY DARBY-STAR .....	
Marco Island (MKY) .....	(GPS or DME/DME-IRU equipped) BIGGY J75 GSO J75 DUNKN SHFTY (RNAV)-STAR .....	
Meilbourne (MLB) .....	WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN BITHO-STAR .....	
Memphis (MEM) .....	PARKE J6 BWG WLDER-STAR .....	
Miami (MIA, TMB, HST) .....	(Water-Turbojets-GPS or DME/DME-IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY HILEY (RNAV)-STAR...	
	or	
	(Turbojets-GPS or DME-DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN HILEY (RNAV)-STAR .....	
	or	

Terminals	Route	Effective Times (UTC)
	(Water-Turbojets) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY OSOGY ENVOY YOSSI MILSY BOYUR HILEY KAINS .....	
	or	
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN ANNEY-STAR .....	
	or	
	(Turboprops) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN ANNEY-STAR .....	
Milwaukee (MKE) .....	COATE J36 FNT MKG V2 SUDDS .....	
Minneapolis (MSP) .....	GAYEL J95 BUF YWT J63 TVC J522 GRB EAU-STAR .....	
Mobile (MOB) .....	BIGGY J75 GVE J37 MGM MVC V20 AXISIS .....	
Montgomery (MGM) .....	BIGGY J75 GVE J37 .....	
Montreal (CYUL) .....	GREKI V419 JUDDS CAM J222 PLB PLB-STAR ....	
Naples (APF) .....	(Turbojets-GPS or DME/DME-IRU equipped) BIGGY J75 GSO J75 DUNKN SHFTY (RNAV)-STAR .....	
Nashville (BNA) .....	PARKE J6 YOCKY GUITR- STAR .....	
New Orleans (MSY, NEW) .....	LANNA J48 MOL J22 MEI J31 .....	
Norfolk (ORF) .....	WHITE J209 SBY V1 CCV .....	
Omaha (OMA) .....	ELIOT J60 IOW DSM .....	
Orlando Executive (ORL) .....	(Turbojets) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN CORLL-STAR .....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Orlando Intl (MCO) .....	(Water-Turbojets) WHITE J209 SBY KEMPR ILM AR15 HIBAC APOLO ORL .....	
	or	
	(Turbojets) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN BITHO-STAR .....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN CWRLD (RNAV)-STAR .....	1100-0400
	or	
	(GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Phoenix (PHX) .....	ELIOT J80 AIR J110 STL J19 ZUN FOSSL-STAR ....	
Pittsburgh (PIT) .....	ELIOT J80 VINSE NESTO-STAR .....	
Portland (PWM) .....	GREKI V419 JUDDS CAM CON CON067 PARSO ...	
Raleigh/Durham (RDU) .....	WHITE J209 CYN J37 J191 PXT PXT238 HPW025 HPW ARGAL-STAR .....	
Richmond (RIC) .....	WHITE J209 SBY V1 CCV HPW .....	
Roanoke (ROA) .....	LANNA J48 MOL .....	
Rochester (ROC) .....	(Turbojets) NEION J223 CORDS ULW V31 GIBBE . or (Turboprops) COATE J36 CFB154 CFB V252 GIBBE .....	
Salt Lake City (SLC) .....	GAYEL J95 BUF J16 ECK J38 GRB ODI FSD J82 RAP J158 DDY J107 OCS OGD .....	
Sarasota/Bradenton (SRQ) .....	BIGGY J75 TAY J85 GNV LAL .....	
Savannah (SAV) .....	(Turbojets) WHITE J209 SBY J79 CHS .....	
St. Louis (STL) .....	ELIOT J80 AIR J110 VHP VLA-STAR .....	
St. Petersburg (PIE) .....	BIGGY J75 TAY LZARD-STAR .....	
Syracuse (SYR) .....	(Turbojets) NEION J223 CORDS CFB V29 .....	
	or	
	(Turboprops) COATE J36 CFB154 CFB .....	
Tampa (TPA) .....	BIGGY J75 TAY LZARD-STAR .....	
Toledo (TOL) .....	ELIOT J60 DJB VWV .....	
Toronto (CYYZ) .....	(Turbojets) GAYEL J95 BUF V36 .....	
	or	
	(Turboprops) COATE J36 ULW141 ULW V36 .....	

Terminals	Route	Effective Times (UTC)
Tri-City (TRI) .....	LANNA J48 MOL J22 PSK V16 HMV .....	
Washington Dulles (IAD) .....	PARKE J6 LRP V143 MULRR AML .....	
Washington Natl (DCA) .....	BIGGY J75 MXE V378 BAL .....	
	or	
	(GPS or DME/DME-IRU equipped) BIGGY J75	
	MXE CLIPR (RNAV)-STAR .....	
West Palm Beach (PBI) .....	(Water-Turbojets-GPS or DME/DME-IRU	
	equipped) WAVEY EMJAY J174 SWL CEBEE	
	WETRO DIW AR19 AYBID FRWAY (RNAV)-STAR..	
	or	
	(Water-Turbojets) WAVEY EMJAY J174 SWL	
	CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE	
	SWOMP SANZZ CASKI .....	
	or	
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121	
	CHS J79 OMN TUXXI-STAR .....	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped)	
	WHITE J209 SBY J79 KATZN ISO J121 CHS J79	
	OMN FRWAY (RNAV)-STAR .....	
Winston-Salem (INT) .....	BIGGY J75 GSO .....	
Youngstown (YNG) .....	ELIOT J60 PSB PSB292060 .....	
From <b>NEWARK (EWR)</b> only		
Akron (CAK) .....	ELIOT J60 PSB PSB292 YNG V72 ACO .....	
Akron (AKR) .....	ELIOT J60 PSB PSB292060 YNG V72 ACO .....	
Allegheny County (AGC) .....	ELIOT J80 VINSE NESTO-STAR .....	
Atlanta (ATL) .....	LANNA J48 ODF WHINZ-STAR .....	
	or	
	(RNAV only) LANNA J48 ODF FALCON	
	(RNAV)-STAR .....	
Augusta (AGS) .....	BIGGY J75 GVE J37 SPA .....	1100-0300
Baltimore (BWI) .....	BIGGY J75 MXE V378 BAL .....	
Binghamton (BGM) .....	NEION J223 CORDS CFB .....	
Birmingham (BHM) .....	LANNA J48 MOL J22 VXV VUZ .....	
Boca Raton (BCT) .....	(Turbojets-GPS or DME/DME-IRU equipped)	
	WHITE J209 SBY J79 KATZN ISO J121 CHS J79	
	OMN CAYSL (RNAV)-STAR .....	
	or	
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121	
	CHS J79 OMN TUXXI-STAR .....	
	or	
	(Water-Turbojets GPS or DME/DME-IRU	
	equipped) WHITE J209 SBY KEMPR DIW AR19	
	AYBID CAYSL (RNAV)-STAR .....	
	or	
	(Water-Turbojets) WHITE J209 SBY KEMPR DIW	
	AR19 AYBID MIMMI NEUBE SWOMP SANZZ	
	CAYSL .....	
Buffalo (BUF) .....	(Turbojets) NEION J223 CORDS ULW ULW306	
	V164 .....	
	or	
	(Turboprops) COATE J36 ULW141 ULW ULW306	
	V164 .....	
Charleston (CHS) .....	(Turbojets) WHITE J209 SBY J79 KATZN TYI CHS .	
Charleston (CRW) .....	PARKE J6 HVQ .....	
Charlotte (CLT) .....	BIGGY J75 GVE LYH MAJIC-STAR .....	1100- 0300
Charlottesville (CHO) .....	BIGGY J75 GVE .....	
Chattanooga (CHA) .....	LANNA J48 MOL J22 VXV .....	
Chicago Midway (MDW) .....	ELIOT J60 GSH GSH-STAR .....	
Chicago O'Hare (ORD) .....	COATE J36 FNT PAITN-STAR .....	0000-2359
Cincinnati (CVG) .....	PARKE J6 COLNS HNN JAVIT-STAR .....	
	or	
	COLNS JAVIT-STAR .....	
	or	
	(RNAV only) PARKE J6 COLNS GAVNN	
	(RNAV)-STAR .....	

Effective  
Times  
(UTC)

Terminals	Route
	or
Cleveland (CLE).....	(all others) PARKE J6 COLNS JAVIT-STAR.....
Columbus (CMH).....	ELIOT J60 PSB PSB292 YNG CXR .....
Dallas/Fort Worth (DFW) .....	ELIOT J80 AIR AIR260 BREMN .....
Dayton (DAY) .....	PARKE J6 LIT BYP .....
Daytona Beach (DAB).....	ELIOT J80 AIR APE DANEI-STAR .....
	WHITE J209 SBY J79 KATZN J193 J121 CHS J79
	OMN .....
Dekalb (Peachtree) (PDK) .....	LANNA J48 ODF AWSON-STAR .....
Denver (DEN) .....	ELIOT J60 IOW J10 LBF SAYGE-STAR .....
Detroit Metro Wayne Co (DTW).....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR
	YQO SPICA-STAR .....
Detroit Satellites:	
Coleman A Young (DET), Windsor	
(CYQG), Pontiac (PTK), Willow Run	
(YIP).....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR
	YQO .....
Ann Arbor (ARB) .....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPER
	YQG .....
Fayetteville (FAY).....	BIGGY J75 GVE SBV RDU .....
Fort Lauderdale (FLL).....	(Turbojets-GPS or DME/DME-IRU equipped)
	WHITE J209 SBY J79 KATZN ISO J121 CHS J79
	OMN FISEL (RNAV)-STAR .....
	or
	(Water-Turbojets-GPS or DME/DME-IRU
	equipped) WHITE J209 SBY KEMPR ILM AR21
	CRANS FISEL (RNAV)-STAR .....
	or
	(Water-Turbojets) WHITE J209 SBY KEMPR ILM
	AR21 CRANS HIILL FATHR GISSH-STAR .....
	or
	(Water-Turboprops) WHITE J209 SBY KEMPR ILM
	AR21 CRANS HIILL FATHR GISSH-STAR .....
	or
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121
	CHS J79 OMN GISSH-STAR.....
	or
	(Turboprops) WHITE J209 SBY J79 KATZN J193
	J121 CHS J79 OMN MLB BLUFI-STAR.....
	or
	(Water-Turboprops-GPS or DME/DME-IRU
	equipped) WHITE J209 SBY KEMPR ILM AR21
	CRANS FISEL (RNAV)-STAR .....
Fort Myers (FMY, RSW) .....	(GPS or DME/DME-IRU equipped) BIGGY J75
	GSO J75 DUNKN SHFTY (RNAV)-STAR .....
Fort Wayne (FWA) .....	ELIOT J80 SUZIE J64 .....
Greensboro (GSO) .....	BIGGY J75 GVE LYH V222 HENBY .....
Greer (GSP).....	BIGGY J75 GVE J37 SPA .....
Hot Springs (HSP) .....	LANNA J48 EMI CSN V140 MOL .....
Houston George Bush Intcntl (IAH) .....	(non-advanced NAV only) LANNA J48 MOL J22
	MEI AEX DAS-STAR .....
	or
	(Turbojets-GPS or DME/DME-IRU equipped)
	LANNA J48 MOL J22 MEI AEX TXMEX
	(RNAV)-STAR.....
Houston Hobby (HOU).....	(GPS or DME/DME-IRU equipped) LANNA J48
	MOL J22 MEI AEX ROKIT (RNAV)-STAR .....
	or
	(non-advanced NAV only) LANNA J48 MOL J22
	MEI AEX DAS-STAR .....
Indianapolis (IND) .....	ELIOT J80 EMPTY DQN CLANG-STAR .....
Ithaca (ITH) .....	(Turbojets) NEION J223 CORDS CFB V423 .....
Kansas City (MKC) .....	ELIOT J80 SPI BQS-STAR .....
Knoxville (TYS).....	LANNA J48 MOL J22 .....
Lewisburg (LWB) .....	LANNA J48 EMI CSN V140 MOL .....
Lexington (LEX).....	PARKE J6 HVQ .....

0000-2359



Terminals	Route	Effective Times (UTC)
Los Angeles (LAX) .....	ELIOT J80 MCI J24 SLN J102 ALS J44 RSK J64 CIVET CIVET-STAR .....	
Louisville (LOU, SDF) .....	PARKE J6 HVQ J6 YOCKY DARBY-STAR .....	
Marco Island (MKY) .....	(GPS or DME/DME-IRU equipped) BIGGY J75 GSO J75 DUNKN SHFTY (RNAV)-STAR .....	
Melbourne (MLB) .....	WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN BITHO-STAR .....	
Memphis (MEM) .....	PARKE LRP J6 BWG WLDER-STAR .....	
Miami (MIA) .....	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN HILEY (RNAV)-STAR .....	
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR DIW AR22 JORAY HILEY (RNAV)-STAR .....	
	or (Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN ANNEY-STAR .....	
	or (Water-Turbojets) WHITE J209 SBY KEMPR DIW AR22 JORAY OSOGY ENVOY YOSSIL MILSY BOYUR HILEY KAINS .....	
	or (Turboprops) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN ANNEY-STAR .....	
Milwaukee (MKE) .....	COATE J36 FNT MKG V2 SUDDS .....	
Minneapolis (MSP) .....	GAYEL J95 BUF YWT J63 TVC J522 GRB EAU- STAR .....	
Mobile (MOB) .....	BIGGY J75 GVE J37 MGM MVC V20 AXISIS .....	
Montgomery (MGM) .....	BIGGY J75 GVE J37 .....	
Montreal (CYUL) .....	GREKI V419 JUDDS CAM J222 PLB PLB-STAR .....	
Naples (APF) .....	(Turbojets-GPS or DME/DME-IRU equipped) BIGGY J75 GSO J75 DUNKN SHFTY (RNAV)-STAR .....	
Nashville (BNA) .....	PARKE J6 YOCKY GUITR-STAR .....	
New Orleans (MSY) .....	LANNA J48 MOL J22 MEI J31 .....	
Norfolk (ORF) .....	WHITE J209 SBY V1 CCV .....	
Orlando Executive (ORL) .....	(Turbojets) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN CORLL-STAR .....	1100-0300
	or (GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Orlando Intl (MCO) .....	(Turbojets) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN BITHO-STAR .....	1100-0300
	or (Water-Turbojets) WHITE J209 SBY KEMPR ILM AR15 HIBAC APOLO ORL .....	1100-0300
	or (GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN CWRLD (RNAV)-STAR .....	1100-0400
	or (GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Phoenix (PHX) .....	ELIOT J80 AIR J110 STL J19 ZUN FOSSL-STAR .....	
Pittsburgh (PIT) .....	ELIOT J80 VINSE NESTO-STAR .....	
Portland (PWM) .....	GREKI V419 JUDDS CAM CON CON067 PARSO .....	
Raleigh-Durham (RDU) .....	WHITE J209 CYN J37 J191 PXT PXT238 HPW025 HPW ARGAL-STAR .....	
Richmond (RIC) .....	WHITE J209 SBY V1 CCV HPW .....	
Roanoke (ROA) .....	LANNA J48 MOL .....	
Rochester (ROC) .....	(Turbojets) NEION J223 CORDS ULW V31 GIBBE . or	

Effective  
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(UTC)

Terminals	Route
	(Turboprops) COATE J36 CFB154 CFB V252 GIBBE .....
Salt Lake City (SLC) .....	GAYEL J95 BUF J16 ECK J38 GRB ODI FSD J82 RAP J158 DDY J107 OCS OGD .....
San Francisco (SFO) .....	GAYEL J95 BUF J16 ECK J38 GRB J106 GEP J70 ABR J32 FMA ILA PYE GOLDEN GATE-STAR .....
Sarasota/Bradenton (SRQ) .....	BIGGY J75 TAY J85 GNV LAL .....
Savannah (SAV) .....	(Turbojets) WHITE J209 SBY J79 CHS .....
St. Louis (STL) .....	ELIOT J80 AIR J110 VHP VLA-STAR .....
St. Petersburg (PIE) .....	BIGGY J75 TAY LZARD-STAR .....
Syracuse (SYR) .....	(Turbojets) NEION J223 CORDS CFB V29 .....
	or COATE J36 CFB154 CFB .....
Tampa (TPA) .....	BIGGY J75 TAY LZARD-STAR .....
	or (GPS or DME/DME-IRU equipped) BIGGY J75 TAY DADES (RNAV)-STAR .....
Toledo (TOL) .....	ELIOT J60 DJB VWV .....
Toronto (CYYZ) .....	(Turbojets) GAYEL J95 BUF V36 .....
	or (Turboprops) COATE J36 ULW141 ULW V36 .....
Tri-City (TRI) .....	LANNA J48 MOL J22 PSK V16 HMV .....
Washington Dulles (IAD) .....	PARKE J6 LRP V143 MULRR AML .....
Washington Natl (DCA) .....	BIGGY J75 MXE V378 BAL .....
	or (GPS or DME/DME-IRU equipped) BIGGY J75 MXE CLIPR (RNAV)-STAR .....
West Palm Beach (PBI) .....	(Water-Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR DIW AR19 AYBID FRWAY (RNAV)-STAR .....
	or (Turbojets-GSP or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN FRWAY (RNAV)-STAR .....
	or (Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN TUXXI-STAR .....
	or (Water-Turbojets) WHITE J209 SBY KEMPR DIW AR19 AYBID NEUBE SWOMP SANZZ CASKI .....
Winston Salem (INT) .....	BIGGY J75 GSO .....
Youngstown (YNG) .....	ELIOT J60 PSB PSB292 .....
<b>From NEWARK SATELLITES only</b>	
Akron (CAK) .....	ELIOT J60 PSB PSB292 YNG V72 ACO .....
Akron (AKR) .....	ELIOT J60 PSB PSB292060 YNG V72 ACO .....
Allegheny County (AGC) .....	ELIOT J80 VINSE NESTO-STAR .....
Augusta (AGS) .....	LANNA J48 ETX215 J75 GVE J37 SPA .....
Baltimore (BWI) .....	BIGGY J75 MXE V378 BAL .....
Binghamton (BGM) .....	(Turbojets) NEION J223 CORDS CFB .....
Birmingham (BHM) .....	LANNA J48 MOL J22 VXV VUZ .....
Boca Raton (BCT) .....	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR .....
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR DIW AR19 AYBID CAYSL (RNAV)-STAR .....
	or (Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN TUXXI-STAR .....
	or (Water-Turbojets) WHITE J209 SBY KEMPR DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL .....
Buffalo (BUF) .....	(Turbojets) NEION J223 CORDS ULW ULW306 V164

1100-0300

Terminals	Route or	Effective Times (UTC)
	(Turboprops) COATE J36 ULW141 ULW ULW306 V164	
Charleston (CHS) .....	(Turbojets) WHITE J209 SBY J79 KATZN TYI CHS .	
Charleston (CRW) .....	PARKE J6 HVQ .....	
Charlotte (CLT) .....	LANNA J48 ETX215 J75 GVE LYH MAJIC-STAR .....	1100-0300
Charlottesville (CHO) .....	LANNA J48 ETX215 J75 GVE .....	
Chattanooga (CHA) .....	LANNA J48 MOL J22 VXV .....	
Chicago O'Hare (ORD) .....	COATE J36 FNT PAITN-STAR .....	0000-2359
Cincinnati (CVG) .....	(RNAV only) PARKE J6 COLNS GAVNN (RNAV)-STAR .....	
	or	
	(all others) PARKE J6 COLNS JAVIT-STAR .....	
Columbus (CMH) .....	ELIOT J80 AIR AIR260 BREMN .....	
Dallas/Fort Worth (DFW) .....	PARKE J6 LIT BYP .....	
Daytona Beach (DAB) .....	WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN .....	
Dekalb (Peachtree) (PDK) .....	LANNA J48 ODF AWSON-STAR .....	
Detroit Metro Wayne Co (DTW) .....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO SPICA-STAR .....	
Detroit Satellites:		
Coleman A Young (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB) .....	GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR YQO .....	
Fayetteville (FAY) .....	LANNA J48 ETX215 J75 GVE SBV RDU .....	
Fort Lauderdale (FLL) .....	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN FISEL (RNAV)-STAR .....	
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR21 CRANS FISEL (RNAV)-STAR .....	
	or	
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN GISSH-STAR .....	
	or	
	(Water-Turbojets) WHITE J209 SBY KEMPR ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or	
	(Water-Turboprops-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR21 CRANS FISEL (RNAV)-STAR .....	
	(Turboprops) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN MLB BLUFI-STAR .....	
	or	
	(Water-Turboprops) WHITE J209 SBY KEMPR ILM AR21 CRANS HIILL FATHR (GISSH)-STAR .....	
Fort Myers (FMY, RSW) .....	(GPS or DME/DME-IRU equipped) LANNA J48 J53 SPA J85 AMG SHFTY (RNAV)-STAR .....	
	or	
	(WATER-Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR WETRO ILM AR15 HIBAC SHFTY (RNAV)-STAR .....	
Fort Wayne (FWA) .....	ELIOT J80 SUZIE J64 .....	
Greensboro (GSO) .....	LANNA J48 ETX215 J75 GVE LYH V222 HENBY ...	0000-2359
Greer (GSP) .....	LANNA J48 ETX215 J75 GVE J37 SPA .....	
Hot Springs (HSP) .....	LANNA J48 EMI CSN V140 MOL .....	
Houston George Bush Intcnl (IAH) .....	(non-advanced NAV only) LANNA J48 MOL J22 VUZ AEX DAS-STAR .....	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped) LANNA J48 MOL J22 VUZ AEX TXMEX (RNAV)-STAR .....	
Houston Hobby (HOU) .....	(GPS or DME/DME-IRU equipped) LANNA J48 MOL J22 VUZ AEX ROKIT (RNAV)-STAR .....	

Effective  
Times  
(UTC)

Terminals	Route	
	or	
	(non-advanced NAV only) LANNA J48 MOL J22	
	VUZ AEX DAS-STAR .....	
Indianapolis (IND) .....	ELIOT J80 EMPTY DQN CLANG-STAR .....	
Ithaca (ITH) .....	(Turbojets) NEION J223 CORDS CFB V423 .....	
Jacksonville (JAX) .....	(Turbojets) WHITE J209 SBY J79 KATZN TYI CHS	
	SSI-STAR .....	
Lewisburg (LWB) .....	LANNA J48 EMI CSN V140 MOL .....	
Lexington (LEX) .....	PARKE J6 HVQ .....	
Los Angeles (LAX) .....	ELIOT J80 MCI J24 SLN J102 ALS J44 RSK J64	
	CIVET CIVET-STAR .....	
Louisville (LOU, SDF) .....	PARKE J6 HVQ J6 YOCKY DARBY-STAR .....	
Marco Island (MKY) .....	(GPS or DME/DME-IRU equipped) LANNA J48 J53	
	SPA J85 AMG SHFTY (RNAV)-STAR .....	
Melbourne (MLB) .....	WHITE J209 SBY J79 KATZN J193 J121 CHS J79	
	OMN BITHO-STAR .....	
Miami (MIA) .....	(Turbojets-GPS or DME/DME-IRU equipped)	
	WHITE J209 SBY J79 KATZN ISO J121 CHS J79	
	OMN HILEY (RNAV)-STAR .....	
	or	
	(Water-Turbojets-GPS or DME/DME-IRU	
	equipped) WHITE J209 SBY KEMPR DIW AR22	
	JORAY HILEY (RNAV)-STAR .....	
	or	
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121	
	CHS J79 OMN ANNEY-STAR .....	
	or	
	(Water-Turbojets) WHITE J209 SBY KEMPR DIW	
	AR22 JORAY OSOGY ENVOY YOSI MILSY	
	BOYUR HILEY KAINS .....	
	or	
	(Turboprops) WHITE J209 SBY J79 KATZN J193	
	J121 CHS J79 OMN ANNEY-STAR .....	
Milwaukee (MKE) .....	COATE J36 FNT MKG V2 SUDDS .....	
Minneapolis (MSP) .....	GAYEL J95 BUF YWT J63 TVC J522 GRB	
	EAU-STAR .....	
Mobile (MOB) .....	LANNA J48 J53 SPA J37 MGM MVC V20 AXISIS ...	
Montgomery (MGM) .....	LANNA J48 J53 SPA J37 .....	
Montreal (CYUL) .....	GREKI V419 JUDDS CAM J222 PLB V91 NAPEE ...	
Naples (APF) .....	(Turbojets-GPS or DME/DME-IRU equipped)	
	LANNA J48 J53 SPA J85 AMG SHFTY	
	(RNAV)-STAR .....	
Nashville (BNA) .....	PARKE J6 YOCKY GUITR-STAR .....	
Norfolk (ORF) .....	WHITE J209 SBY V1 CCV .....	
Orlando Executive (ORL) .....	(Turbojets) WHITE J209 SBY J79 KATZN J193	
	J121 CHS J79 OMN CORLL-STAR .....	1100-0300
Orlando Intl (MCO) .....	(Turbojets) WHITE J209 SBY J79 KATZN J193	
	J121 CHS J79 OMN BITHO-STAR .....	1100-0300
	or	
	(Water-Turbojets) WHITE J209 SBY KEMPR ILM	
	AR15 HIBAC APOLO ORL .....	1100-0300
Phoenix (PHX) .....	ELIOT J80 AIR J110 STL J19 ZUN FOSSL-STAR ...	
Portland (PWM) .....	GREKI V419 JUDDS CAM CON CON067 PARSO ...	
Richmond (RIC) .....	WHITE J209 SBY V1 CCV HPW .....	
Roanoke (ROA) .....	LANNA J48 MOL .....	
Rochester (ROC) .....	(Turbojets) NEION J223 CORDS ULW V31 GIBBE .	
	or	
	(Turboprops) COATE J36 CFB154 CFB V252	
	GIBBE .....	
Salt Lake City (SLC) .....	GAYEL J95 BUF J16 ECK J38 GRB ODI FSD J82	
	RAP J158 DDY J107 OCS OGD .....	
Savannah (SAV) .....	(Turbojets) WHITE J209 SBY J79 CHS .....	
St. Petersburg (PIE) .....	LANNA J48 J53 SPA J85 TAY LZARD-STAR .....	
Syracuse (SYR) .....	(Turbojets) NEION J223 CORDS CFB V29 .....	
	or	
	(Turboprops) COATE J36 CFB154 CFB .....	

Terminals	Route
Tampa (TPA) .....	LANNA J48 J53 SPA J85 TAY LZARD-STAR .....
	or
	(GPS or DME/DME-IRU equipped) LANNA J48 J53 SPA J85 TAY DADES (RNAV)-STAR .....
Toledo (TOL) .....	ELIOT J60 DJB VVV .....
Toronto (CYYZ) .....	(Turbojets) GAYEL J95 BUF V36 .....
	or
	(Turboprops) COATE J36 ULW141 ULW V36 .....
Tri-City (TRI) .....	LANNA J48 MOL J22 PSK V16 HMV .....
Washington Dulles (IAD) .....	PARKE J6 LRP V143 MULRR AML .....
Washington Natl (DCA) .....	BIGGY J75 MXE V378 BAL .....
West Palm Beach (PBI) .....	(Turbojets-GPS or DME/DME-IRU equipped)
	WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN FRWAY-STAR .....
	or
	(Water-Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR DIW AR19 AYBID FRWAY (RNAV)-STAR .....
	or
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN TUXXI-STAR .....
	or
	(Water-Turbojets) WHITE J209 SBY KEMPR DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI .....
Winston Salem (INT) .....	BIGGY J75 GSO .....
Youngstown (YNG) .....	ELIOT J60 PSB PSB292060 .....
<b>FROM TETERBORO (TEB) only</b>	
Boca Raton (BCT) .....	(Water-Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR DIW AR19 AYBID CAYSL (RNAV)-STAR .....
	or
	(Water-Turbojets) WHITE J209 SBY KEMPR DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL .....
	or
	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR .....
	or
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN TUXXI-STAR .....
Charleston (CHS) .....	(Turbojets) WHITE J209 SBY J79 KATZN TYI CHS .
Cincinnati (CVG) .....	(RNAV only) PARKE J6 COLNS GAVNN (RNAV)-STAR .....
	or
	(all others) PARKE J6 COLNS JAVIT-STAR .....
Detroit Satellites:	
Coleman A Young (DET), Pontiac (PTK), Windsor (CYQG), Ann Arbor (ARB), Willow Run (YIP) .....	GAYEL J95 BUF J547 YXU PICES-STAR .....
	or
	ELIOT J60 PSB LLEE0-STAR .....
Ft. Lauderdale (FLL, OPF) .....	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN FISEL (RNAV)-STAR .....
	or
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN GISSH-STAR .....
	or
	(Turboprops) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN MLB BLUF-STAR .....
	or
	(Water-Turboprops) WHITE J209 ORF J174 ILM AR21 CRANS HILL FATHR GISSH-STAR .....

Terminals	Route or	Effective Times (UTC)
	(Water-Turboprops-GPS or DME/DME-IRU equipped) WHITE J209 ORF J174 ILM AR21 CRANS FISEL (RNAV)-STAR .....	
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR21 CRANS FISEL (RNAV)-STAR .....	
	or	
	(Water-Turbojets) WHITE J209 SBY KEMPR ILM AR21 CRANS FATHR GISSH-STAR .....	
Jacksonville (JAX) .....	(Turbojets) WHITE J209 SBY J79 CHS SSI-STAR ..	
Marco Isle (MKY) .....	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC SHFTY (RNAV)-STAR .....	
Miami (MIA, TMB, HST) .....	(Water-Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR DIW AR22 JORAY HILEY (RNAV)-STAR .....	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN HILEY (RNAV)-STAR .....	
	or	
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN ANNEY-STAR .....	
	or	
	(Water-Turbojets) WHITE J209 SBY KEMPR DIW AR22 JORAY OSOGY ENVOY YOSSY MILSY BOYUR HILEY KAINS .....	
	or	
	(Turboprops) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN ANNEY-STAR .....	
Naples (APF) .....	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC SHFTY (RNAV)-STAR .....	
Orlando Intl (MCO) .....	(Turbojets) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN BITHO-STAR .....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN CWRLD (RNAV)-STAR .....	1100-0400
	or	
	(GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Orlando/Exec (ORL) .....	(Turbojets) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN CORLL-STAR .....	1100-0300
	or	
	(Water-Turbojets) WHITE J209 SBY KEMPR ILM AR15 HIBAC APOLO ORL .....	
	or	
	(GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Savannah (SAV) .....	(Turbojets) WHITE J209 SBY J79 CHS .....	
West Palm Beach (PBI) .....	(Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN FRWAY (RNAV)-STAR .....	
	or	
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN TUXXI-STAR .....	
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR DIW AR19 AYBID FRWAY (RNAV)-STAR .....	

## Terminals

## Route

## FROM WHITE PLAINS (HPN)

Allegheny (AGC) .....

Atlanta (ATL) .....

Baltimore (BWI) .....

Binghamton (BGM) .....

Boca Raton (BCT).....

Boston (BOS) .....

Buffalo (BUF).....

Burlington (BTV).....

Charleston (CHS) .....

Charleston (CRW).....

Charlotte (CLT) .....

Chicago Midway (MDW) .....

Chicago O'Hare (ORD) .....

Cincinnati (CVG).....

Cleveland (CLE) .....

Columbus (CMH).....

Dallas/Ft Worth (DFW).....

Dayton (DAY) .....

Daytona Beach (DAB) .....

Denver (DEN).....

Detroit Metro-Wayne Co (DTW) .....

## Detroit Satellites:

Coleman A Young (DET), Pontiac (PTK),

Windsor (CYQG), Willow Run (YIP), Ann

Arbor (ARB) .....

Fayetteville (FAY) .....

Fort Lauderdale (FLL, FXE, OPF) .....

or  
(Water-Turbojets) WHITE J209 SBY KEMPR DIW  
AR19 AYBID MIMMI NEUBE SWOMP SANZZ  
CASKI .....

ELIOT J80 VINSE NESTO-STAR .....

LANNA J48 ODF WHINZ-STAR .....

or

(RNAV only) LANNA J48 ODF FLCON (RNAV)-STAR

BIGGY J75 MXE V378 BAL.....

(Turbojets) NEION J223 CORDS CFB .....

(Turbojets-GPS or DME/DME-IRU equipped)

WHITE J209 SBY J79 KATZN J193 J121 CHS

J79 OMN CAYSL (RNAV)-STAR .....

or

(Turbojets) WHITE J209 SBY J79 KATZN ISO J121

CHS J79 OMN TUXXI-STAR.....

or

(Water-Turbojets-GPS or DME/DME-IRU

equipped) WAVEY EMJAY J174 SWL CEBEE

WETRO DIW AR19 AYBID CAYSL (RNAV)-STAR ..

or

(Water) WAVEY EMJAY J174 SWL CEBEE WETRO

DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ

CAYSL .....

MERIT ORW ORW-STAR .....

(Turbojets) NEION J223 CORDS ULW ULW306

V164 .....

or

(Turboprops) GAYEL J95 CFB V270 ULW306

V164 .....

GREKI V419 JUDDS CAM.....

(Turbojets) WHITE J209 SBY J79 KATZN TYI CHS .

PARKE J6 HVQ .....

BIGGY J75 GVE LYH MAJIC-STAR .....

ELIOT J60 GSH GSH-STAR .....

COATE J36 FNT PAITN-STAR .....

(RNAV only) PARKE J6 COLNS GAVNN

(RNAV)-STAR .....

or

(all others) PARKE J6 COLNS JAVIT-STAR .....

ELIOT J60 PSB PSB292 YNG CXR .....

ELIOT J80 AIR AIR260 BREMN .....

PARKE J6 LIT BYP .....

ELIOT J80 AIR APE DANEI-STAR .....

WHITE J209 SBY J79 KATZN J193 J121 CHS J79

OMN.....

ELIOT J60 IOW J10 LBF SAYGE-STAR .....

GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR

YQO SPICA-STAR .....

GAYEL J95 CFB CFB286 TRAAD ULW306 KOOPR

YQO .....

BIGGY J75 GVE SBV RDU .....

(Turbojets-All Others) WHITE J209 SBY J79

KATZN ISO J121 CHS J79 OMN GISSH-STAR....

or

(Turbojets)-/E./G./R./J./L./Q equipped) WHITE

J209 SBY J79 KATZN ISO J121 CHS J79 OMN

FISEL (RNAV)-STAR .....

or

(Turboprops) WHITE J209 SBY J79 KATZN J193

J121 CHS J79 OMN MLB BLUFI-STAR.....

or

0000-2359

Effective  
Times  
(UTC)

Terminals	Route
	(Water-Turboprops-/E,/G,/R,/J,/L,/Q equipped) WHITE J209 SBY KEMPR ILM AR21 CRANS FISEL (RNAV)-STAR .....
Fort Myers (FMY, RSW) .....	(GPS or DME/DME-IRU equipped) BIGGY J75 GSO J75 DUNKN SHFTY (RNAV)-STAR .....
Fort Wayne (FWA) .....	ELIOT J80 SUZIE J64 .....
Greensboro (GSO) .....	BIGGY J75 .....
Greer (GSP) .....	BIGGY J75 GVE J37 SPA .....
Hot Springs (HSP) .....	LANNA J48 EMI CSN V140 MOL .....
Houston George Bush Intrcnl (IAH) .....	(non-advanced NAV only) LANNA J48 MOL J22 VUZ AEX DAS-STAR .....
	or (Turbojets-GPS or DME/DME-IRU equipped) LANNA J48 MOL J22 VUZ AEX TXMEX (RNAV)-STAR .....
Houston Hobby (HOU) .....	(GPS or DME/DME-IRU equipped) LANNA J48 MOL J22 VUZ AEX ROKIT (RNAV)-STAR .....
	or (non-advanced NAV only) LANNA J48 MOL J22 VUZ AEX DAS-STAR .....
Indianapolis (IND) .....	ELIOT J80 EMPTY DQN CLANG-STAR .....
Ithaca (ITH) .....	(Turbojets) NEION J223 CORDS CFB V423 .....
Jacksonville (JAX) .....	(Turbojets) WHITE J209 SBY J79 CHS SSI-STAR ..
Lewisburg (LWB) .....	LANNA J48 EMI CSN V140 MOL .....
Lexington (LEX) .....	PARKE J6 HVQ .....
Los Angeles (LAX) .....	ELIOT J80 MCI J24 SLN J102 ALS J44 RSK J64 CIVET CIVET-STAR .....
Louisville (SDF) .....	PARKE J6 HVQ J6 YOCKY DARBY-STAR .....
Marco Island (MKY) .....	(GPS or DME/DME-IRU equipped) BIGGY J75 GSO J75 DUNKN SHFTY (RNAV)-STAR .....
	or (Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC SHFTY (RNAV)-STAR .....
Melbourne (MLB) .....	WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN BITHO-STAR .....
Memphis (MEM) .....	PARKE J6 BWG WLDER-STAR .....
Miami (MIA, TMB, HST) .....	(Water-Turbojets-GPS or DME/DME-IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY HILEY (RNAV)-STAR...
	or (Turbojets-GPS or DME/DME-IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN HILEY (RNAV)-STAR .....
	or (Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN ANNEY-STAR .....
	or (Turboprops) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN ANNEY-STAR .....
	or (Water-Turbojets) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY OSOGY ENVOY YOSSI MILSY BOYUR HILEY KAINS .....
Milwaukee (MKE) .....	COATE J36 FNT MKG V2 SUDDS .....
Minneapolis (MSP) .....	GAYEL J95 BUF YWT J63 TVC J522 GRB EAU-STAR .....
Mobile (MOB) .....	BIGGY J75 GVE J37 MGM MVC V20 AXISIS .....
Montgomery (MGM) .....	BIGGY J75 GVE J37 .....
Montreal (CYUL) .....	GREKI V419 JUDDS CAM J222 PLB PLB-STAR ....
Naples (APF) .....	(Turbojets-GPS or DME/DME-IRU equipped) BIGGY J75 GSO J75 DUNKN SHFTY (RNAV)-STAR .....
	or



Terminals	Route	Effective Times (UTC)
	(Turbojets–GPS or DME/DME–IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC SHFTY (RNAV)–STAR.....	
Nashville (BNA).....	PARKE J6 YOCKY GUITR–STAR .....	
Norfolk (ORF).....	WHITE J209 SBY V1 CCV.....	
Orlando Exec (ORL) .....	(Turbojets) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN CORLL–STAR .....	
	or	
	(GPS or DME/DME–IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC CWRLD (RNAV)–STAR.....	1100–0400
Orlando Intl (MCO) .....	(Turbojets) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN BITHO–STAR .....	
	or	
	(Water–Turbojets) WHITE J209 SBY KEMPR ILM AR15 HIBAC APOLO ORL .....	
	or	
	(GPS or DME/DME–IRU equipped) WHITE J209 SBY J79 KATZN J193 J121 CHS J79 OMN CWRLD (RNAV)–STAR.....	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) WHITE J209 SBY KEMPR ILM AR15 HIBAC CWRLD (RNAV)–STAR.....	1100–0400
Phoenix (PHX).....	ELIOT J80 AIR J110 STL J19 ZUN FOSSL–STAR....	
Portland (PWM).....	GREKI V419 JUDDS CAM CON CON067 PARSO....	
Richmond (RIC).....	WHITE J209 SBY V1 CCV HPW .....	
Rochester (ROC) .....	(Turbojets) NEION J223 CORDS ULW V31 GIBBE..	
Salt Lake City (SLC) .....	GAYEL J95 BUF J16 ECK J16 BAE DBQ J94 OCS OGD .....	
Savannah (SAV) .....	(Turbojets) WHITE J209 SBY J79 CHS.....	
St. Louis (STL).....	ELIOT J80 AIR J110 VHP VLA–STAR .....	
St. Petersburg (PIE).....	BIGGY J75 TAY LZARD–STAR .....	
Syracuse (SYR) .....	(Turbojets) NEION J223 CORDS CFB V29 .....	
Tampa (TPA).....	BIGGY J75 TAY LZARD–STAR .....	
	or	
	(GPS or DME/DME–IRU equipped) BIGGY J75 TAY DADES (RNAV)–STAR .....	
Toledo (TOL).....	ELIOT J60 DJB VWV .....	
Toronto (CYYZ) .....	GAYEL J95 BUF V36 .....	
Tri City (TRI) .....	LANNA J48 MOL J22 PSK V16 HMV .....	
Washington Dulles (IAD) .....	PARKE J6 LRP V143 MULRR AML .....	
Washington Natl (DCA) .....	BIGGY J75 MXE V378 BAL.....	
	or	
	(GPS or DME/DME–IRU equipped) BIGGY J75 MXE CLIPR (RNAV)–STAR.....	
West Palm Beach (PBI) .....	(Water–Turbojets–GPS or DME/DME–IRU equipped) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR19 AYBID FRWAY (RNAV)–STAR..	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN FRWAY–STAR .....	
	or	
	(Turbojets) WHITE J209 SBY J79 KATZN ISO J121 CHS J79 OMN TUXXI–STAR.....	
	or	
	(Water–Turbojets) WAVEY EMJAY J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI.....	
Winston/Salem (INT) .....	BIGGY J75 GSO .....	
Youngstown (YNG).....	ELIOT J60 PSB PSB292060.....	
<b>NORFOLK (ORF)</b>		
Chicago O'Hare (ORD) .....	MOL GEFFS J149 FWA KNOX–STAR or MOL GEFFS J149 ROD WATSN (RNAV)–STAR .....	

Terminals	Route	Effective Times (UTC)
Cincinnati (CVG).....	(at or above FL240) WAIKS ORF290 KELLE MOL130 MOL HNN090/50 HNN JAVIT-STAR .... or (at or below FL220) WAIKS ORF290 KELLE MOL130 MOL HNN JAVIT-STAR..... or (RNAV only—at or above FL240) WAIKS KELLE MOL HNN090/50 HNN GAVNN (RNAV)-STAR .... or (RNAV only—at or below FL220) WAIKS KELLE MOL HNN GAVNN (RNAV)-STAR.....	
Detroit Metro Wayne Co (DTW).....	WAIKS ORF290 KELLE MOL130 MOL GEMNI-STAR .....	
Houston George Bush Intcnl (IAH) .....	(Turbojets-GPS or DME/DME-IRU equipped) VUZ AEX TXMEX (RNAV)-STAR .....	
Houston Hobby (HOU).....	or (non-advanced NAV only) VUZ AEX DAS-STAR .....	
Islip (ISP).....	(GPS or DME/DME-IRU equipped) VUZ AEX ROKIT (RNAV)-STAR .....	
Kennedy (JFK).....	or (non-advanced NAV only) VUZ AEX DAS-STAR.....	1100-0400
La Guardia (LGA).....	SCHOL SBY200 J121 SARDI CCC .....	1100-0400
Newark (EWR).....	HPW V213 PXT KORRY-STAR .....	1100-0300
	HPW HPW025 J14 PXT DYLIN-STAR .....	
	or (GPS or DME/DME-IRU equipped) HPW HPW025 J14 PXT PHLBO (RNAV)-STAR .....	
Philadelphia (PHL).....	SCHOL SBY200 V139 RADDV VCN-STAR .....	1100-0400
Teterboro (TEB).....	HPW V213 PXT JAIKE-STAR .....	1100-0300
	or (non advanced navigation, turbojets only) WAIKS ORF290079 FAK BRV AML J227 J49 J70 LVZ LVZ-STAR .....	1100-0300
<b>PHILADELPHIA METRO AREA (PHL, PNE)</b>		
Albany (ALB).....	DITCH J225 JFK244016 LGA LGA055 V487 CANAN V130 .....	
Atlanta (ATL) .....	MXE MXE278 PENSY J48 ODF WHINZ-STAR .....	
	or (RNAV only) MXE MXE278 PENSY J48 ODF FLCON (RNAV)-STAR .....	
Boca Raton (BCT).....	(Turbojets-/E./G./R./J./L./Q equipped) OOD TEBEE HAYDO SBY J79 KATZN ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR .....	
	or (Turbojets-All Others) OOD TEBEE HAYDO SBY J79 KATZN ISO J121 CHS J79 OMN TUXXI-STAR .....	
	or (Water-Turbojets-/E./G./R./J./L./Q equipped) OOD TEBEE HAYDO SBY J209 ORF KEMPR DIW AR19 AYBID CAYSL (RNAV)-STAR.....	
	or (Water-Turbojets-All Others) OOD TEBEE HAYDO SBY J209 ORF KEMPR DIW AR19 AYBID NEUBE SWOMP SANZZ CAYSL (RNAV)-STAR .....	
Boston (BOS) .....	DITCH J225 JFK ORW-STAR .....	
Buffalo (BUF).....	PTW PTW320 J64 RAV RAV312 BUF162 .....	
Burlington (BTV).....	DITCH J225 JFK J222 CAM .....	
Charleston (CHS) .....	(Turbojets) OOD TEBEE HAYDO SBY J79 CHS.....	
Charlotte (CLT) .....	MXE J75 GVE LYH MAJIC-STAR .....	
Chicago Midway (MDW).....	PTW PTW320 SARAA RAV PSB J60 GSH GSH-STAR .....	
Chicago O'Hare (ORD) .....	PTW PTW320 J64 FWA OXI-STAR .....	0000-2359
	or	

Terminals	Route	Effective Times (UTC)
Cincinnati (CVG).....	(GPS OR DME/DME-IRU equipped) PTW PTW320 SARMA J64 MAINE ZANLA WATSN (RNAV)-STAR ..... (RNAV only) MXE PENSY J110 FLIRT J6 COLNS GAVNN (RNAV)-STAR ..... or (all others) MXE PENSY J110 FLIRT J6 COLNS JAVIT-STAR .....	
Cleveland (CLE) .....	PTW PTW320 J64 RAV PSB PSB292 YNG CXR	
Columbus (CMH).....	MXE MXE278 PENSY J110 AIR BREMN-STAR .....	
Dallas/Fort Worth (DFW) .....	MXE MXE278 PENSY J110 FLIRT J6 LIT BONHAM-STAR .....	
Dayton (DAY) .....	MXE MXE278 PENSY J110 AIR APE DANEI-STAR..	
Denver (DEN).....	PTW PTW320 J64 RAV PSB J60 IOW J10 LBF SAYGE-STAR .....	
Detroit Metro-Wayne Co (DTW) .....	MXE MXE278 PENSY J110 LEJOY J518 DJB GEMNI-STAR .....	
Detroit Satellites:		
Coleman A Young (DET), Windsor (CYQG), Pontiac (PTK) .....	PTW PTW320 J64 RAV PSB LLEEO-STAR .....	
Willow Run (YIP) .....	PTW PTW320 J64 RAV PSB ERI .....	
Fort Lauderdale (FLL).....	(Water-Turboprops-GPS or DME/DME-IRU equipped) OOD TEBEE HAYDO SBY KEMPR ILM AR21 CRANS FISEL (RNAV)-STAR..... or (Turbojets-GPS or DME/DME-IRU equipped) OOD TEBEE HAYDO SBY J79 KATZN ISO J121 CHS J79 OMN FISEL (RNAV)-STAR .....	
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) OOD TEBEE HAYDO SBY KEMPR ILM AR21 CRANS FISEL (RNAV)-STAR..... or (Turbojets) OOD TEBEE HAYDO SBY J79 KATZN ISO J121 CHS J79 OMN GISSH-STAR..... or (Water-Turboprops) OOD TEBEE HAYDO SBY KEMPR ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or (Water-Turbojets) OOD TEBEE HAYDO SBY KEMPR ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or (Turboprops) OOD TEBEE HAYDO SBY J79 KATZN J193 J121 CHS J79 OMN MLB BLUFI-STAR.....	
Fort Myers (FMY, RSW) .....	(GPS or DME/DME-IRU equipped) MXE J75 GSO J75 DUNKN SHFTY (RNAV)-STAR..... or (WATER-Turbojets) OOD TEBEE HAYDO SBY KEMP ILM AR15 HIBAC SHFTY (RNAV)-STAR.....	
Greensboro (GSO).....	MXE J75 GVE LYH V222 HENBY .....	0000-2359
Hot Springs (HSP) .....	MXE MXE278 PENSY J48 MOL .....	
Houston George Bush Intrcntl (IAH) .....	(non-advanced NAV only) MXE MXE278 PENSY J48 MOL J22 VUZ AEX DAS-STAR .....	
	or (Turbojets-GPS or DME/DME-IRU equipped) MXE MXE278 PENSY J48 MOL J22 VUZ AEX TEXMX (RNAV)-STAR .....	
Houston Hobby (HOU).....	(GPS or DME/DME-IRU equipped) MXE MXE278 PENSY J48 MOL J22 VUZ AEX ROKIT (RNAV)-STAR .....	
	or (non-advanced NAV only) MXE MXE278 PENSY J48 MOL J22 VUZ AEX DAS-STAR .....	

Effective  
Times  
(UTC)

Terminals	Route	
Indianapolis (IND) .....	MXE MXE278 PENSJ J110 AIR J80 EMPTY DQN CLANG-STAR .....	
Jacksonville (JAX).....	(Turbojets) OOD TEBEE HAYDO SBY J79 CHS SSI-STAR.....	
Kansas City (MKC) .....	MXE MXE278 J110 AIR J80 SPI BRAYMER-STAR..	
Knoxville (TYS).....	MXE MXE278 PENSJ J48 MOL J22 .....	
Lewisburg (LWB) .....	MXE MXE278 PENSJ J48 MOL V140 COVEY .....	
Lexington (LEX) .....	MXE MXE278 PENSJ J110 LEJOY HVQ .....	
Louisville (SDF).....	MXE MXE278 PENSJ J110 FLIRT J6 YOCKY DARBY-STAR.....	
Manchester (MHT).....	DITCH J225 JFK J37 ALB EEN MHT .....	
Marco Island (MKY) .....	(GPS or DME/DME-IRU equipped) MXE J75 GSO J75 DUNKN SHFTY (RNAV)-STAR.....	
Memphis (MEM).....	MXE MXE278 PENSJ J110 FLIRT J6 BWG WLDER-STAR .....	
Miami (MIA).....	(Water-Turbojets) OOD TEBEE HAYDO SBY KEMPR DIW AR22 JORAY OSGOY ENVOY YOSSJ MILSY BOYUR HILEY KAINS .....	
	or (Water-GPS or DME/DME-IRU equipped) OOD TEBEE HAYDO SBY KEMPR DIW AR22 JORAY HILEY (RNAV)-STAR.....	
	or (Turbojets) OOD TEBEE HAYDO SBY J79 KATZN ISO J121 CHS J79 OMN ANNEY-STAR .....	
	or (Turbojets-GPS or DME/DME-IRU equipped) OOD TEBEE HAYDO SBY J79 KATZN ISO J121 CHS J79 OMN HILEY (RNAV)-STAR .....	
	or (Turboprops) OOD TEBEE HAYDO SBY J79 KATZN J193 J121 CHS J79 OMN ANNEY-STAR .....	
Milwaukee (MKE) .....	PTW PTW320 J64 RAV PSB J60 DJB J34 J70 PMM V170 BRAVE .....	
Minneapolis (MSP) .....	PTW PTW320 J64 RAV PSB J60 DJB J34 BAE EAU-STAR .....	
Montreal (CYUL).....	DITCH J225 JFK J222 PLB PLB-STAR .....	
Naples (APF) .....	(Turbojets-GPS or DME/DME-IRU equipped) MXE J75 GSO J75 DUNKN SHFTY (RNAV)-STAR .....	
Nashville (BNA).....	MXE MXE278 PENSJ J110 FLIRT J6 YOCKY GUITR-STAR .....	
New Orleans (MSY) .....	MXE MXE278 PENSJ J48 MOL J22 MEI RYTHM-STAR .....	
Newport News (PHF).....	OOD OOD198 SBY018 SBY VI CCV .....	
Orlando Executive (ORL) .....	OOD OOD198 SBY018 SBY J79 KATZN J193 J121 CHS J79 OMN CORLL-STAR .....	1100-0300
Orlando Intl (MCO) .....	OOD OOD198 SBY018 SBY J79 KATZN J193 J121 CHS J79 OMN BITHO-STAR .....	1100-0300
	or (Water-Turbojets) OOD TEBEE HAYDO SBY KEMPR ILM AR15 HIBAC APOLO ORL .....	
	or (GPS or DME/DME-IRU equipped) OOD OOD198 SBY018 SBY J79 KATZN J193 J121 CHS J79 OMN CWRLD (RNAV)-STAR .....	1100-0400
	or (GPS or DME/DME-IRU equipped) OOD TEBEE HAYDO SBY KEMPR ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Pittsburgh (PIT) .....	MXE MXE278 PENSJ J110 VINSE NESTO-STAR ..	
Portland (PWM).....	DITCH V312 DRIFT CCC BOS BOS048 MESHL .....	1100-0300
Providence (PVD) .....	DITCH V312 DRIFT J121 HTO JORDN-STAR .....	
	or (Turbojet, NonAdvanced Navigation) DITCH V312 DRIFT J121 HTO V268 MINNK.....	
Raleigh/Durham (RDU) .....	OOD OOD198 SBY018 SBY ARGAL-STAR .....	

**Terminals****Route**

Richmond (RIC)..... OOD OOD198 SBY018 SBY V1 CCV HPW .....  
 Roanoke (ROA) ..... MXE MXE278 PENSJ J48 MOL .....  
 Rochester (ROC) ..... PTW PTW320 J64 RAV RAV312 J227 ULW V31  
 GIBBE .....  
 San Francisco (SFO)..... PTW PTW320 J64 HLC J80 OAL MOD-STAR .....  
 Sarasota/Bradenton (SRQ) ..... MXE J75 TAY J85 GNV GNV174055 LAL .....  
 Savannah (SAV) ..... ODD TEBEE HAYDO SBY J79 CHS .....  
 St. Louis (STL)..... MXE MXE278 PENSJ J110 VHP VLA-STAR .....  
 St. Petersburg (PIE)..... MXE J75 TAY LZARD-STAR .....  
 Tampa (TPA)..... MXE J75 TAY LZARD-STAR .....

or

(GPS or DME/DME-IRU equipped) MXE J75 TAY  
 DADES (RNAV)-STAR .....

Toronto (CYYZ) ..... PTW PTW320 J64 RAV PSB J61 BUF V36 .....  
 West Palm Beach (PBI) ..... (Turbojets-GPS or DME/DME-IRU equipped) OOD  
 TEBEE HAYDO SBY J79 KATZN J193 J121 CHS  
 J79 OMN FRWAY (RNAV)-STAR .....

or

(Turbojets) OOD TEBEE HAYDO SBY J79 KATZN  
 ISO J121 CHS J79 OMN TUXXI-STAR .....

or

(Water-Turbojets GPS or DME/DME-IRU  
 equipped) OOD TEBEE HAYDO SBY KEMPR DIW  
 AR19 AYBID FRWAY (RNAV)-STAR .....

or

(Water-Turbojets) OOD TEBEE HAYDO SBY  
 KEMPR DIW AR19 AYBID MIMMI NEUBE  
 SWOMP SANZZ CASKI.....

White Plains (HPN) ..... DITCH V312 CYN BOUNO-STAR .....  
 Windsor Locks (BDL) ..... DITCH J225 JFK DPK DPK-STAR .....

**PITTSBURGH (PIT)**

Albany (ALB) ..... EWC EWC050 J584 SLT RKA RKA099 V449 .....  
 Boston (BOS) ..... EWC EWC050 J584 SLT J190 ALB GDM  
 GDM-STAR .....  
 Buffalo (BUF) ..... EWC EWC038 EWC038060 DKK BUF .....  
 Chicago Midway (MDW) ..... BSV BSV297 MAYZE J60 GSH GSH-STAR .....  
 Chicago O'Hare (ORD) ..... BSV BSV286 OXI095 OXI OXI-STAR .....

1100-0300

or

BSV ZANLA WATSN (RNAV)-STAR .....  
 Fort Lauderdale (FLL)..... (/E, /G, /R, /J, /L, /Q) CKB CKB197 PSK014  
 PSK CAE SAV J103 OMN FISEL (RNAV)-STAR....  
 or  
 (all others) CKB CKB197 PSK014 PSK CAE SAV  
 J103 OMN GISSH-STAR.....

Houston George Bush Intrcntl (IAH) ..... (Turbojets-GPS or DME/DME-IRU equipped) LIT  
 J180 SWB TXMEX (RNAV)-STAR .....

or

(non-advanced NAV only) LIT J180 SWB  
 DAS-STAR.....  
 Houston Hobby (HOU)..... (GPS or DME/DME-IRU equipped) LIT J180 SWB  
 ROKIT (RNAV)-STAR .....

or

(non-advanced NAV only) LIT J180 SWB  
 DAS-STAR.....  
 Islip (ISP) ..... EWC EWC050 J584 SLT J190 CFB HNK J68 V130  
 ORW V308 BOROS CCC .....

Kennedy (JFK)..... EWC EWC050 J584 SLT J190 J70 LVZ  
 LENDY-STAR .....

La Guardia (LGA) ..... TON PSB MIP-STAR .....

Miami (MIA)..... (/E, /G, /R, /J, /L, /Q) CKB CKB197 PSK014  
 PSK CAE SAV J103 OMN HILEY (RNAV)-STAR ...  
 or  
 (all others) CKB CKB197 PSK014 CAE SAV J103  
 OMN ANNEY-STAR .....

Newark (EWR)..... EWC EWC050 J584 SLT FQM-STAR .....

Philadelphia (PHL)..... JST J152 HAR V210 BUNTS .....

Terminals	Route	Effective Times (UTC)
Tampa (TPA) .....	CKB197 PSK014 PSK CAE J75 TAY LZARD-STAR. or (GPS or DME/DME-IRU equipped) CKB197 PSK014 PSK CAE J75 TAY DADES (RNAV)-STAR .....	
White Plains (HPN) .....	(Above 250 kts) EWC EWC050 J584 SLT J190 CFB DNY280 DNY VALRE-STAR .....	
	or (250 kts or less) EWC EWC050 J584 SLT J190 CFB DNY280 DNY NOBBI-STAR .....	
Windsor Locks (BDL) .....	EWC EWC050 J584 SLT RKA SWEDE-STAR .....	
<b>PORTLAND (PWM)</b>		
Chicago O'Hare (ORD) .....	CAM SYR J63 EHMAN YXU J547 FNT PAITN-STAR .....	1100-0300
Cincinnati (CVG) .....	(RNAV only) ENE J547 SYR JOSSY MAULL KODIE CTW TIGRR (RNAV)-STAR .....	
	or (all others) ENE J547 SYR J29 KELIE SLT016 SLT SLT249 KODIE CTW081 CTW CINCE-STAR .....	
La Guardia (LGA) .....	CON CAM ALB PWL IGN V157 .....	1100-0300
Newark (EWR) .....	CON CAM ALB V213 SAX .....	1100-0300
Philadelphia (PHL) .....	PSM WITCH CCC SHERL J121 BRIGS VCN-STAR ..	1100-0300
Pittsburgh (PIT) .....	CAM ALB J49 HNK HNK271 J190 SLT GRACE-STAR .....	1100-0300
Washington Dulles (IAD) .....	PSM WITCH GLYDE BAF J77 SAX J6 LRP DELRO-STAR .....	1100-0300
<b>PROVIDENCE (PVD)</b>		
Atlanta (ATL) .....	PUT BAF J77 PTW J48 ODF WHINZ-STAR .....	1100-0300
	or (RNAV only) PUT BAF J77 PTW J48 ODF FLCON (RNAV)-STAR .....	1100-0300
Baltimore (BWI) .....	PUT PUT283 NELIE CMK J75 MXE V378 BAL .....	1100-0300
Boca Raton (BCT) .....	(Turbojets-GPS or DME/DME-IRU equipped) PVD180 JUMPR MVY260 RIFLE J174 ORF ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR .....	
	or (Turbojets) PVD180 JUMPR MVY260 RIFLE J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR .....	
	or (Water-GPS or DME/DME-IRU equipped) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO DIW AR19 AYBID CAYSL (RNAV)-STAR .....	
	or (Water-Turbojets) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO DIW AR19 AYBID NEUBE SWOMP SANZZ CAYSL (RNAV)-STAR .....	
Chicago O'Hare (ORD) .....	PUT CTR CAM SYR J63 EHMAN YXU J547 FNT PAITN-STAR .....	1100-0300
Cincinnati (CVG) .....	(RNAV only) CTR HNK J49 PSB MAULL KODIE CTW TIGRR (RNAV)-STAR .....	
	or (all others) CTR HNK J49 PSB PSB281 MAULL SLT249 KODIE CTW081 CTW CINCE-STAR .....	
Detroit Metro-Wayne Co (DTW) .....	PUT CTR CAM SYR J547 BUF YQO SPICA-STAR .....	1100-0300
Detroit Satellites:		
Coleman A Young (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB) .....	PUT CTR CAM J547 BUF YQO .....	1100-0300
Fort Lauderdale (FLL) .....	(Water-Turbojets-GPS or DME/DME-IRU equipped) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO ILM AR21 CRANS FISEL (RNAV)-STAR .....	1100-0300
	or	

Terminals	Route	Effective Times (UTC)
	(Water–Turboprops–GPS or DME/DME–IRU equipped) PVD180 JUMPR MVY260 RIFLE J174 SWL CEBEE WETRO ILM AR21 CRANS FISEL (RNAV)–STAR .....	1100–0300
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) PVD180 JUMPR MVY260 RIFLE J174 ORF ISO J121 CHS J79 OMN FISEL (RNAV)–STAR .....	
	or	
	(Turboprops) PVD180 JUMPR MVY260 RIFLE J174 ORF J121 CHS J79 OMN MLB BLUFI–STAR .....	1100–0300
	or	
	(Turbojets) PVD180 JUMPR MVY260 RIFLE J174 ORF ISO J121 CHS J79 OMN GISSH–STAR .....	
	or	
	(Water–Turboprops) PVD180 JUMPR MVY260 RIFLE J174 SWL CEBEE WETRO ILM AR21 CRANS HIILL FATHR GISSH–STAR .....	
	or	
	(Water–Turbojets) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO ILM AR21 CRANS HIILL FATHR GISSH–STAR .....	1100–0300
Fort Myers (RSW) .....	(WATER–Turbojets) PVD180 JUMPR MVY J174 SWL CEBEE WETRO ILM AR15 HIBAC SHFTY (RNAV)–STAR .....	1100–0300
La Guardia (LGA) .....	(Above 250 kts) PUT BAF IGN V157 .....	1100–0300
	or	
	(250 kts or less) PUT BAF V106 PWL V405 CASSH V123 HAARP .....	1100–0300
Miami (MIA) .....	(Water) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO DIW AR22 JORAY OSOGY ENVOY YOSSE MILSY BOYUR HILEY KAINS .....	
	or	
	(Water–GPS or DME/DME–IRU equipped) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO DIW AR22 JORAY HILEY (RNAV)–STAR .....	
	or	
	(Turbojets) PVD180 JUMPR MVY260 RIFLE J174 ORF ISO J121 CHS J79 OMN ANNEY–STAR .....	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) PVD180 JUMPR MVY260 RIFLE J174 ORF ISO J121 CHS J79 OMN HILEY (RNAV)–STAR .....	
	or	
	(Turboprops) PVD180 JUMPR MVY260 RIFLE J174 ORF J121 CHS J79 OMN ANNEY–STAR .....	
Minneapolis/St Paul (MSP) .....	PUT CTR CAM SYR J547 BUF YWT J63 TVC J522 GRB EAU–STAR .....	1100–0300
Newark (EWR) .....	V146 BAF V292 V213 SAX .....	1100–0300
	or	
	(250 kts or less) V146 BAF V292 V489 COATE ...	1100–0300
Orlando Executive (ORL) .....	PVD180 JUMPR MVY260 J174 ORF J121 CHS J79 OMN CORLL–STAR .....	1100–0300
	or	
	(GPS or DME/DME–IRU equipped) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)–STAR .....	1100–0400
Orlando Intl (MCO) .....	PVD180 JUMPR MVY260 J174 ORF J121 CHS J79 OMN BITHO–STAR .....	1100–0300
	or	
	(Water–Turbojets) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO ILM AR15 HIBEC APOLO ORL .....	
	or	

Terminals	Route	Effective Times (UTC)
	(GPS or DME/DME-IRU equipped) PVD180 JUMPR MVY260 J174 ORF J121 CHS J79 OMN CWRLD (RNAV)-STAR.....	1100-0400
	or	
	(GPS or DME/DME-IRU equipped) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Philadelphia (PHL).....	PVD180 JUMPR MVY260 J121 PLUME V139 BRIGS VCN-STAR.....	1100-0300
Pittsburgh (PIT).....	PUT CTR HNK HNK271 J190 SLT GRACE-STAR ...	1100-0300
Raleigh-Durham (RDU) .....	PVD180 JUMPR MVY260 RIFLE J174 SWL ARGAL-STAR .....	1100-0300
St. Louis (STL).....	PUT BAF J77 SAX J80 J110 VHP VLA-STAR .....	1100-0300
Tampa (TPA).....	PUT PUT283 NELIE CMK J75 TAY LZARD-STAR ....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) PUT PUT283 NELIE CMK J75 TAY DADES (RNAV)-STAR .....	1100-0300
Washington Dulles (IAD) .....	PUT BAF J77 SAX J6 LRP DELRO-STAR .....	1100-0300
Washington Natl (DCA) .....	PVD180 JUMPR MVY260 J174 ATR085 ATR V308 BILIT .....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) PVD180 JUMPR MVY260 J174 ATR085 ATR V308 LAFLN BILIT (RNAV)-STAR .....	1100-0300
West Palm Beach (PBI) .....	(Turbojets-GPS or DME-DME/IRU equipped) PVD180 JUMPR MVY260 RIFLE J174 ORF ISO J121 CHS J79 OMN FRWAY (RNAV)-STAR .....	1100-0300
	or	
	(Turbojets) PVD180 JUMPR MVY260 RIFLE J174 ORF ISO CHS J79 OMN TUXXI-STAR .....	
	or	
	(Water-GPS or DME/DME-IRU equipped) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO DIW AR19 AYBIB FRWAY (RNAV)-STAR .....	1100-0300
	or	
	(Water-Turbojets) PVD180 JUMPR MVY260 J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI .....	1100-0300
<b>READING (RDG)</b>		
Detroit Metro Wayne Co (DTW).....	KIPPI J80 J518 DJB GEMNI-STAR	
<b>RICHMOND (RIC)</b>		
Cincinnati (CVG).....	(RNAV only-at or above FL240) YEAST MOL HNN090/50 HNN GAVNN (RNAV)-STAR .....	
	or	
	(RNAV only-at or below FL220) YEAST MOL HNN GAVNN (RNAV)-STAR .....	
	or	
	(all others at or above FL240) YEAST-DP MOL HNN090/50 HNN JAVIT-STAR .....	
	or	
	(all others at or below FL220) YEAST-DP MOL HNN JAVIT-STAR .....	
Detroit Metro Wayne Co (DTW).....	YEAST-DP MOL GEMNI-STAR .....	
Houston George Bush Intcntrl (IAH) .....	(Turbojets-GPS or DME/DME-IRU equipped) VUZ AEX TXMEX (RNAV)-STAR .....	
	or	
	(non-advanced NAV only) VUZ AEX DAS-STAR .....	
Houston Hobby (HOU).....	(GPS or DME/DME-IRU equipped) VUZ AEX ROKIT (RNAV)- STAR .....	
	or	
	(non-advanced NAV only) VUZ AEX DAS-STAR.....	
<b>ROANOKE (ROA)</b>		
Detroit Metro Wayne Co (DTW).....	BKW GEMNI-STAR.....	



Terminals	Route	Effective Times (UTC)
<b>ROCHESTER (ROC)</b>		
Cincinnati (CVG).....	(RNAV only) GEE BURST MAULL KODIE CTW TIGRR (RNAV)-STAR..... or (all others) GEE GEE204 BURST SLT013 SLT SLT249 KODIE CTW081 CTW CINCE-STAR .....	
Detroit Satellites: Coleman A Young (DET), Pontiac (PTK), Ann Arbor (ARB), Windsor (CYQG), Willow Run (YIP).....	YXU PICES-STAR..... (Above 250 kts) V34 BEEPS J522 EXTOL RKA RKA-STAR .....	
La Guardia (LGA).....	or (250 kts or less) V34 BEEPS DNY NOBBI-STAR ... (Above 250 kts) V34 BEEPS J522 HNK SHAFF-STAR .....	
Newark (EWR).....	or (250 kts or less) V34 BEEPS J522 HNK V167 WEARD V489 COATE .....	
Philadelphia (PHL).....	GEE SLT PSB HAR V210 BUNTS .....	
<b>STATE COLLEGE (UNV)</b>		
Detroit Metro Wayne Co (DTW).....	PSB ERI SPICA-STAR.....	
<b>SYRACUSE (SYR)</b>		
Cincinnati (CVG).....	(RNAV only) SYR DINES MAULL KODIE CTW TIGRR (RNAV)-STAR..... or (all others) SYR V483 DINES GEE GEE204 KELIE SLT013 SLT SLT249 KODIE CTW081 CTW CINCE-STAR.....	
Detroit Satellites: Coleman A Young (DET), Pontiac (PTK), Windsor (CYQG), Ann Arbor (ARB), Willow Run (YIP).....	BUF YXU PICES-STAR .....	
<b>TORONTO (CYYZ)</b>		
Cincinnati (CVG).....	(RNAV only) THORL JHW MAULL KODIE CTW TIGRR (RNAV)-STAR .....	
	or (all others) THORL JHW JHW194 MAULL SLT249 KODIE CTW081 CTW CINCE-STAR .....	
Detroit Metro Area: Willow Run (YIP), Pontiac (PTK) Coleman A Young (DET), Windsor (CYQG) .....	ANCOL V104 YXU PICES-STAR.....	
La Guardia (LGA) .....	(Above 250 kts) V252 GEE RKA-STAR .....	1100-0300
	or (250 kts or less) V252 GEE V14 BEEPS J522 EXTOL RKA292 RKA NOBBI-STAR .....	
San Francisco (SFO).....	GRB J106 GEP J70 ABR J32 FMG ILA PYE .....	
<b>WASHINGTON/BALTIMORE METRO AREA (DCA, BWI, IAD)</b>		
Asheville (AVL).....	FLUKY DCA246 PAUKI MOL J22 PSK SUG .....	1100-0300
Atlanta (ATL) .....	FLUKY DCA246 PAUKI MOL WHINZ-STAR .....	1100-0400
	or (RNAV only) FLUKY DCA246 PAUKI MOL FLCON RNAV-STAR.....	1100-0300
Binghamton (BGM) .....	JERES J227 BABEE CFB .....	1100-0400
Birmingham (BHM) .....	FLUKY DCA246 PAUKI MOL J22 VUZ .....	1100-0300
Boston (BOS) .....	(turbojets) SWANN V268 BROSS J42 RBV J222 JFK ORW-STAR .....	
	or (Turboprops only) PALEO-DP SIE J121 HTO V308 ORW V16 WOONS .....	
Buffalo (BUF).....	JERES J220 BUF162 .....	1100-0300
Charleston (CHS) .....	DAILY J61 HUBBS J193 WEAVR J121 .....	1100-0400
Chattanooga (CHA) .....	FLUKY DCA246 PAUKI MOL J22 VXV .....	1100-0300
Chicago Midway (MDW).....	AML J149 FWA GSH-STAR .....	1100-0300
Chicago O'Hare (ORD) .....	AML J149 FWA KNOX-STAR .....	0000-2359

Terminals	Route or	Effective Times (UTC)
Cincinnati (CVG).....	AML J149 ROD WATSN (RNAV)-STAR ..... (RNAV only) LDN J134 COLNS GAVNN (RNAV)-STAR.....	0000-2359
Cleveland (CLE) .....	or (all others) LDN J134 COLNS JAVIT-STAR .....	
Columbus (CMH).....	JERES J211 YNG CXR .....	
Dallas/Fort Worth (DFW) .....	AML J149 HACKS APE .....	1100-0300
Denver (DEN).....	LDN J134 J6 LIT BYP .....	
	LDN J134 STL J110 GCK J154 RYLIE DANDD-STAR .....	1100-0300
Detroit Metro Wayne Co (DTW).....	JERES J211 J60 DJB .....	1100-0400
Detroit Satellites:		
Coleman A Young (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB) .....	JERES J211 J60 HAGUD LLEEO-STAR .....	
Fort Lauderdale (FLL).....	(Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN GISSH-STAR.....	
	or (Turboprops) DAILY J61 HUBBS J193 J121 CHS J79 OMN MLB BLUFI-STAR .....	
	or (Water-Turboprops) DAILY J61 EDDYS J174 ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or (Water-Turbojets) DAILY J61 HUBBS KEMPR ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
Fort Myers (FMY, RSW) .....	(Turbojets-GPS or DME/DME-IRU equipped) HAFNR GVE J75 DUNKN SHFTY (RNAV)-STAR ...	
Fort Wayne (FWA) .....	AML J149 .....	1100-0300
Houston George Bush Intcntl (IAH) .....	(non-advanced NAV only) FLUKY DCA246 PAUKI MOL J22 VUZ AEX DAS-STAR .....	1100-0300
	or (Turbojets-GPS DME/DME-IRU equipped) FLUKY DCA246 PAUKI MOL J22 VUZ AEX TXMEX (RNAV)-STAR.....	1100-0300
Houston Hobby (HOU).....	(GPS or DME/DME-IRU equipped) FLUKY DCA246 PAUKI MOL J22 VUZ AEX ROKIT (RNAV)-STAR...	1100-0300
	or (non-advanced NAV only) FLUKY DCA246 PAUKI MOL J22 VUZ AEX DAS-STAR.....	1100-0300
Indianapolis (IND) .....	AML J149 EMPTY DQJ CLANG-STAR .....	
Jacksonville (JAX).....	DAILY J61 HUBBS J193 J121 CHS SSI-STAR .....	1100-0400
Kansas City Area (MCI) .....	LDN J134 STL MCM BQS-STAR .....	1100-0300
Knoxville (TYS).....	FLUKY DCA246 PAUKI MOL 22 .....	1100-0300
La Guardia (LGA).....	PALEO V44 AGARD KORRY-STAR .....	1100-0400
Louisville (SDF).....	LDN J134 J6 YOCKY DARBY-STAR .....	1100-0300
Memphis (MEM).....	LDN J134 J6 BWG WLDER-STAR .....	1100-0300
Miami (MIA).....	(Turbojets) DAILY J61 HUBBS J193 J121 CHS J79 VRB HEATT -STAR .....	
	or (Turboprops) DAILY J61 HUBBS J193 J121 CHS J79 VRB J45 ABLUFI AR1 .....	
	or (Water) DAILY J61 EDDYS J174 DIW AR14 METTA AR1 HOBEE HEATT -STAR .....	
Milwaukee (MKE) .....	BUFFR J518 DJB J34 ALPHE J70 PMM V170 BRAVE .....	
Minneapolis (MSP).....	BUFFR J518 DJB J34 BAE EAU-STAR .....	
Nashville (BNA).....	LDN J134 J6 YOCKY GUITR-STAR .....	1100-0300
New Orleans (MSY) .....	FLUKY DCA246 PAUKI MOL J22 MEI J31 .....	1100-0300
Orlando Intl (MCO) .....	DAILY J61 HUBBS J193 J121 CHS J79 OMN BITHO-STAR .....	1100-0300
	or (Water) DAILY J61 EDDYS J174 DIW AR14 METTA AR1 HOBEE AR6 ORL .....	1100-0300
Phoenix (PHX) .....	LDN J134 LBL J19 ZUN FOSSL-STAR .....	1100-0300

Terminals	Route	Effective Times (UTC)
Pittsburgh (PIT) .....	BUFR IHD NESTO-STAR .....	
Rochester (ROC) .....	JERES J227 ULW V31 GIBBE .....	1100-0400
Sarasota/Bradenton (SRQ) .....	HAFNR GVE J75 TAY J85 GNV LAL .....	1100-0300
St. Louis (STL) .....	LDN J134 FLM PXV QBALL-STAR .....	1100-0300
Syracuse (SYR) .....	JERES J227 BABEE CFB .....	
Tampa (TPA) .....	HAFNR GVE J75 TAY LZARD-STAR .....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) HAFNR GVE	
	J75 TAY DADES (RNAV)-STAR .....	1100-0300
Teterboro (TEB) .....	(non-advanced navigation, turbojet only) JERES	
	J227 J49 J70 LVZ LVZ-STAR .....	1100-0300
	or	
	(advanced navigation, turbojet only) SWANN	
	JAIKE-STAR .....	1100-0300
Toledo (TOL) .....	(FL180 and above) J211 J64 EWC MFD VWV .....	
West Palm Beach (PBI) .....	(Water) DAILY J61 EDDYS J174 DIW AR14 METTA	
	AR1 HOBEE SURFN-STAR .....	1100-0300
	or	
	DAILY J61 HUBBS J193 J121 CHS J79 OMN	
	SURFN-STAR .....	1100-0300
Windsor Locks (BDL) .....	SWANN V268 BROSS J42 RBV J222 JFK DPK	
	DPK-STAR .....	1100-0400
From <b>BALTIMORE (BWI)</b> only		
Albany (ALB) .....	SWANN-DP OOD J42 RBV LGA LGA055 V487	
	CANAN V130 .....	1100-0300
Boca Raton (BCT) .....	(Water-Turbojets-GPS or DME/DME-IRU	
	equipped) DAILY J61 HUBBS KEMPR WETRO	
	DIW AR19 AYBID CAYSL (RNAV)-STAR .....	
	or	
	(Water-Turbojets) DAILY J61 HUBBS KEMPR	
	WETRO DIW AR19 AYBID MIMMI NEUBE	
	SWOMP SANZZ CAYSL .....	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped)	
	DAILY J61 HUBBS J193 HCM ISO J121 CHS	
	J79 OMN CAYSL (RNAV)-STAR .....	
	or	
	(Turbojets) DAILY J61 HUBBS J193 HCM ISO	
	J121 CHS J79 OMN TUXXI-STAR .....	
Boston (BOS) .....	(Turbojets) SWANN-DP OOD J42 RBV J222 JFK	
	ORW-STAR .....	
	or	
	(Turboprops) PALEO-DP SIE J121 HTO V308 ORW	
	V16 WOONS .....	
Bridgeport (BDR) .....	PALEO-DP SIE J121 MAD193 KEYED .....	1100-0300
Charleston (CHS) .....	(Turbojets) DAILY J61 HUBBS J193 HCM FKN J79	
	CHS .....	
Chicago (MDW) .....	AML J149 FWA GOSHEN-STAR .....	
Chicago (ORD) .....	AML J149 ROD WATSN (RNAV)-STAR .....	
	or	
	AML J149 FWA KNOX-STAR .....	0000-2359
Dayton (DAY) .....	AML J149 HACKS APE DANEI-STAR .....	1100-0400
Detroit Metro Wayne Co (DTW) .....	AML J149 SINDE GEMNI-STAR .....	
	or	
	MCRAJ J518 DJB DJB314 GEMNI GEMNI-STAR ...	
Fort Lauderdale (FLL, FXE, OPF) .....	(Turboprops) V93 PXT V213 COLIN HCM J193	
	J121 CHS J79 OMN MLB BLUFI-STAR .....	
	or	
	(Water-Turboprops) V93 PXT V213 COLIN HCM	
	ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped)	
	DAILY J61 HUBBS J193 HCM ISO J121 CHS	
	J79 OMN FISEL (RNAV)-STAR .....	
	or	

Terminals	Route	Effective Times (UTC)
	(Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN GISSH-STAR..... or (Water-Turboprops-GPS or DME/DME-IRU equipped) V93 PXT V213 COLIN HCM ILM AR21 CRANS FISEL (RNAV)-STAR ..... or (Water-Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR ILM AR21 CRANS FISEL (RNAV)-STAR ..... or (Water-Turbojets) DAILY J61 HUBBS KEMPR ILM AR21 CRANS HILL FATHR GISSH-STAR.....	
Fort Myers (FYM, RSW) .....	(Turbojets-GPS or DME/DME-IRU equipped) HAFNR GVE J75 DUNKN SHFTY (RNAV)-STAR ... or (WATER-Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR ILM AR15 HIBAC SHFTY (RNAV)-STAR .....	
Hartford (HFD) .....	SWANN-DP OOD J42 RBV J222 JFK DPK MAD V1 .	1100-0300
Islip (ISP).....	PALEO-DP SIE J121 SARDI CCC .....	1100-0300
Jacksonville (JAX).....	(Turbojets) DAILY J61 HUBBS J193 HCM FKN J79 CHS SSI-STAR.....	
Miami (MIA, TMB, HST).....	(Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN HILEY (RNAV)-STAR ..... or (Turboprops) V93 PXT V213 COLIN HCM J193 J121 CHS J79 OMN ANNEY-STAR ..... or (Water-Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR WETRO DIW AR22 JORAY HILEY (RNAV)-STAR..... or (Water-Turbojets) DAILY J61 HUBBS KEMPR WETRO DIW AR22 JORAY OSOGY ENVOY YOSS MILSY BOYUR HILEY KAINS ..... or (Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN ANNEY-STAR ..... or (Water-Turboprops-GPS or DME/DME-IRU equipped) V93 PXT V213 COLIN HCM J193 CVI DIW AR22 JORAY HILEY (RNAV)-STAR..... or (Water-Turboprops) V93 PXT V213 COLIN HCM J193 CVI DIW AR22 JORAY OSOGY ENVOY YOSS MILSY BOYUR HILEY KAINS .....	
Newark (EWR).....	SWANN-DP V445 DQO DYLIN-STAR .....	1100-0300
	or (GPS or DME/DME IRU equipped) SWANN-DP V445 DQO PHLBO (RNAV)-STAR .....	1100-0300
Orlando Executive (ORL).....	(GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR ILM AR15 HIBAC CWRLD(RNAV)-STAR .....	1100-0400
Orlando Intl (MCO) .....	(Water-Turbojets) DAILY J61 HUBBS KEMPR ILM AR15 HIBAC APOLO ORL ..... or (GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 J121 CHS J79 OMN CWRLD (RNAV)-STAR.....	1100-0400
	or (GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR ILM AR15 HIBAC CWRLD (RNAV)-STAR.....	1100-0400
Providence (PVD) .....	SWANN-DP OOD J42 RBV HTO GREEN-STAR .....	1100-0400

Terminals	Route or	Effective Times (UTC)
Savannah (SAV) .....	(Turbojets, Non-Advanced Nav only) SWANN-DP OOD J42 RBV HTO V268 MINNK.....	1100-0400
Teterboro (TEB) .....	(Turbojets) DAILY J61 HUBBS J193 HCM FKN J79 CHS .....	
West Palm Beach (PBI) .....	(Turbojets, Non-Advanced Nav Only) JERES J227 J49 J70 LVZ LVZ-STAR .....	1100-0300
	(Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN FRWAY (RNAV)-STAR .....	1100-0300
	or (Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN TUXXI-STAR.....	1100-0300
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR WETRO DIW AR19 AYBID FRWAY (RNAV)-STAR.....	
	or (Water-Turbojets) DAILY J61 HUBBS KEMPR WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI.....	
White Plains (HPN) .....	SWANN-DP OOD J150 CYN BOUNO-STAR .....	1100-0300
Windsor Locks (BDL) .....	SWANN-DP ODD J42 RBV J222 JFK DPK-STAR....	1100-0300
From <b>WASHINGTON DULLES (IAD)</b> only		
Albany (ALB) .....	SWANN V268 BROSS J42 RBV LGA LGA055 V487 CANAN V130 .....	1100-0400
Boca Raton (BCT).....	(Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR .....	
	or (Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN TUXXI-STAR.....	
	or (Water-Turbojets GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR WETRO DIW AR19 AYBID CAYSL (RNAV)-STAR .....	
	or (Water-Turbojets) DAILY J61 HUBBS KEMPR WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL .....	
Bridgeport (BDR) .....	AML091 PALEO V44 SIE J121 MAD193 KEYED ...	1100-0400
Charleston (CHS) .....	(Turbojets) DAILY J61 HUBBS J193 HCM FKN J79 CHS .....	1100-0400
Chicago (MDW) .....	AML J149 FWA GOSHEN-STAR .....	
Chicago (ORD) .....	AML J149 ROD WATSN (RNAV)-STAR .....	
	or AML J149 FWA KNOX-STAR .....	
Dayton (DAY) .....	AML J149 HACKS APE DANEI-STAR .....	1100-0400
Detroit Metro Wayne Co (DTW).....	AML J149 SINDE GEMNI-STAR .....	
	or MCRAJ J518C DJB DJB314 GEMNI GEMNI-STAR .	
Fort Lauderdale (FLL).....	(Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN FISEL (RNAV)-STAR .....	
	or (Turbojets) DAILY J61 HUBBS J193 J121 CHS J79 OMN GISSH-STAR.....	
	or (Turboprops) DAILY J61 HUBBS J193 J121 CHS J79 VRB BLUFI-STAR .....	
	or (Water-Turboprops-GPS or DME/DME-IRU equipped) DAILY J61 EDDYS J174 ILM AR21 CRANS FISEL (RNAV)-STAR .....	
	or	

Terminals	Route	Effective Times (UTC)
	(Water–Turboprops) DAILY J61 EDDYS J174 ILM AR21 CRANS FATHR GISSH–STAR .....	
	or	
	(Water–Turbojets–GPS or DME/DME–IRU equipped) DAILY J61 HUBBS KEMPR ILM AR21 CRANS FISEL (RNAV)–STAR .....	
	or	
	(Water–Turbojets) DAILY J61 HUBBS KEMPR ILM AR21 CRANS FATHR GISSH–STAR .....	
Fort Myers (FMY, RSW) .....	(Turbojets–GPS or DME/DME–IRU equipped) HAFNR GVE J75 DUNKN SHFTY (RNAV)–STAR ...	
	or	
	(WATER–Turbojets–GPS or DME/DME–IRU equipped) DAILY J61 HUBBS KEMPR WETRO ILM AR15 HIBAC SHFTY (RNAV)–STAR .....	
Hartford (HFD) .....	SWANN V268 BROSS J42 RBV J222 JFK DPK MAD V1 .....	1100–0300
Islip (ISP) .....	AML091 PALEO V44 SIE J121 SARDI CCC .....	1100–0400
Jacksonville (JAX) .....	(Turbojets) DAILY J61 HUBBS J193 HCM FKN CHS SSI–STAR .....	
Miami (MIA) .....	(Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN ANNEY–STAR .....	
	or	
	(Water–Turbojets–GPS or DME/DME–IRU equipped) DAILY J61 HUBBS KEMPR WETRO DIW AR22 JORAY HILEY (RNAV)–STAR .....	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN HILEY (RNAV)–STAR .....	
	or	
	(Turboprops) V93 PXT V213 COLIN HCM J193 J121 CHS J79 OMN ANNEY–STAR .....	
	or	
	(Water) DAILY J61 HUBBS KEMPR WETRO DIW AR22 JORAY OSOGY ENVOY YOSSY MILSY BOYUR HILEY KAINS .....	
Newark (EWR) .....	(GPS or DME/DME–IRU equipped) AML SWANN V445 DQO PHLBO (RNAV)–STAR .....	1100–0400
Orlando Executive (ORL) .....	(GPS or DME/DME–IRU equipped) DAILY J61 HUBBS KEMPR ILM AR15 HIBAC CWRLD (RNAV)–STAR .....	1100–0400
Orlando Intl (MCO) .....	(Water–Turbojets) DAILY J61 HUBBS KEMPR ILM AR15 HIBAC APOLO ORL .....	
	or	
	(GPS or DME/DME–IRU equipped) DAILY J61 HUBBS J193 J121 CHS J79 OMN CWRLD (RNAV)–STAR .....	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) DAILY J61 HUBBS KEMPR ILM AR15 HIBAC CWRLD (RNAV)–STAR .....	1100–0400
Providence (PVD) .....	SWANN V268 BROSS J42 RBV HTO GREEN–STAR .....	1100–0400
	or	
	(Turbojets, Non–Advanced Navigation) SWANN V268 BROSS J42 RBV HTO V268 MINNK .....	1100–0400
Savannah (SAV) .....	(Turbojets) DAILY J61 HUBBS J193 HCM FKN J79 CHS .....	
Teterboro (TEB) .....	(Turbojets, Non–Advanced Nav Only) JERES J227 J49 J70 LVZ LVZ–STAR .....	1100–0300
West Palm Beach (PBI) .....	(Turbojets–GPS or DME/DME–IRU equipped) DAILY J61 HUBBS KEMPR WETRO DIW AR19 AYBID FRWAY (RNAV)–STAR .....	
	or	

Terminals	Route	Effective Times (UTC)
	(Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN TUXXI-STAR .....	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN FRWAY (RNAV)-STAR .....	
	or	
	(Water-Turbojets) DAILY J61 HUBBS KEMPR WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI .....	
White Plains (HPN) .....	SWANN V268 BROSS J150 CYN BOUNO-STAR ....	1100-0400
From <b>WASHINGTON NATL (DCA)</b> only		
Albany (ALB) .....	SWANN V268 BROSS J42 RBV LGA LGA055 V487 CANAN V130 .....	1100-0400
Boca Raton (BCT) .....	(Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR .....	
	or	
	(Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN TUXXI-STAR .....	
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR WETRO DIW AR19 AYBID CAYSL (RNAV)-STAR .....	
	or	
	(Water-Turbojets) DAILY J61 HUBBS KEMPR WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL .....	
Boston (BOS) .....	(Turboprops) PALEO-DP SIE J121 HTO V308 ORW V16 WOONS .....	1100-0400
Bridgeport (BDR) .....	PALEO V44 SIE J121 MAD193 KEYED .....	
Charleston (CHS) .....	(Turbojets) DAILY J161 HUBBS J193 HCM FKN J79 CHS .....	
Chicago (MDW) .....	AML J149 FWA GOSHEN-STAR .....	
Chicago (ORD) .....	AML J149 ROD WATSN (RNAV)-STAR .....	
	or	
	AML J149 FWA KNOX-STAR .....	
Dayton (DAY) .....	AML J149 HACKS APE DANEI-STAR .....	1100-0400
Detroit Metro Wayne Co (DTW) .....	AML J149 SINDE GEMNI-STAR .....	
	or	
	MCRAJ J518 DJB DJB314 GEMNI GEMNI-STAR ...	
Fort Lauderdale (FLL) .....	(Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN FISEL (RNAV)-STAR .....	
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR ILM AR21 CRANS FISEL (RNAV)-STAR .....	
	or	
	(Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN GISSH-STAR .....	
	or	
	(Water-Turbojets) DAILY J61 HUBBS KEMPR ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	
	or	
	(Water-Turboprops-GPS or DME/DME-IRU equipped) DAILY J61 EDDYS J174 ILM AR21 CRANS FISEL (RNAV)-STAR .....	
	or	
	(Turboprops) DAILY J61 HUBBS J193 J121 CHS J79 OMN MLB BLUFI-STAR .....	
	or	
	(Water-Turboprops) DAILY J61 EDDYS J174 ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	

Terminals	Route	Effective Times (UTC)
Fort Myers (FMY, RSW) .....	(Turbojets-GPS or DME/DME-IRU equipped) HAFNR GVE J75 DUNKN SHFTY (RNAV)-STAR ... or (Water-Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR WETRO ILM AR15 HIBAC SHFTY (RNAV)-STAR.....	
Hartford (HFD) .....	SWANN V268 BROSS J42 RBV J222 JFK DPK MAD V1 .....	1100-0400
Islip (ISP) .....	PALEO V44 SIE J121 SARDI CCC .....	1100-0400
Jacksonville (JAX) .....	(Turbojets) DAILY J61 HUBBS J193 HCM FKN J79 CHS SSI-STAR.....	
Miami (MIA, TMB, HST) .....	(Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN HILEY (RNAV)-STAR .....	
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR WETRO DIW AR22 JORAY HILEY (RNAV)-STAR .....	
	or (Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN ANNEY-STAR .....	
	or (Water-Turbojets) DAILY J61 HUBBS KEMPR WETRO DIW AR22 JORAY OSOGY ENVOY YOSI MILSY BOYUR HILEY KAINS .....	
Newark (EWR) .....	(GPS or DME/DME-IRU equipped) SWANN V445 DQO PHLBO (RNAV)-STAR .....	1100-0400
Orlando Executive (ORL) .....	(GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR ILM AR15 HIBAC CWRLD (RNAV)-STAR .....	1100-0400
Orlando Intl (MCO) .....	(Water-Turbojets) DAILY J61 HUBBS KEMPR ILM AR15 HIBAC APOLO ORL .....	
	or (GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 J121 CHS J79 OMN CWRLD (RNAV)-STAR.....	1100-0400
	or (GPS or DME/DME-IRU equipped) DAILY J61 HUBBS KEMPR ILM AR15 HIBAC CWRLD (RNAV)-STAR.....	1100-0400
Providence (PVD) .....	SWANN V268 BROSS J42 RBV HTO GREEN-STAR. or (Turbojets, Non-Advanced Navigation) SWANN V268 BROSS J42 RBV HTO V268 MINK .....	1100-0400
Savannah (SAV) .....	(Turbojets) DAILY J61 HUBBS J193 HCM FKN J79 CHS .....	1100-0400
Teterboro (TEB) .....	(Turbojets, Non-Advanced Nav Only) JERES J227 J49 J70 LVZ LVZ-STAR .....	1100-0300
West Palm Beach (PBI) .....	(Turbojets-GPS or DME/DME-IRU equipped) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN FRWAY (RNAV)-STAR .....	
	or (Water-Turbojets-GPS or DME/DME IRU equipped) DAILY J61 HUBBS KEMPR WETRO DIW AR19 AYBID FRWAY (RNAV)-STAR.....	
	or (Turbojets) DAILY J61 HUBBS J193 HCM ISO J121 CHS J79 OMN TUXXI-STAR.....	
	or (Water-Turbojets) DAILY J61 HUBBS KEMPR WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI.....	
White Plains (HPN) .....	SWANN V268 BROSS J150 CYN BOUNO-STAR ....	1100-0400



Terminals	Route	Effective Times (UTC)
<b>WILKES-BARRE/SCRANTON (AVP)</b>		
Cincinnati (CVG).....	(RNAV only) LVZ SEG PSB MAULL KODIE CTW TIGRR (RNAV)-STAR ..... or (all others) LVZ SEG PSB PSB281 MAULL SLT249 KODIE CTW081 CTW CINCE-STAR .....	
<b>WINDSOR LOCKS (BDL)</b>		
Atlanta (ATL) .....	PWL SAX J77 PTW J48 ODF WHINZ-STAR ..... or (RNAV only) PWL SAX J77 PTW J48 ODF FLCON (RNAV)-STAR.....	
Baltimore (BWI) .....	PWL CMK J75 MXE V378 BAL .....	1100-0300
Boca Raton (BCT).....	(Turbojets GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 ORF ISO J121 CHS J79 OMN CAYSL (RNAV)-STAR ..... or (Turbojets) COASTAL (HI)-DP GEDIC J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR..... or (Water-Turbojets-GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO DIW AR19 AYBID CAYSL (RNAV)-STAR..... or (Water-Turbojets) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL .....	
Chicago O'Hare (ORD) .....	CTR CAM SYR J63 EHMAN YXU J547 FNT PAITN-STAR .....	1100-0300
Cincinnati (CVG).....	CTR HNK J49 PSB PSB281 MAULL SLT249 KODIE CTW081 CTW CINCE-STAR.....	
Dallas/Ft Worth (DFW).....	PWL SAX J6 LIT BYP .....	1100-0300
Detroit Metro Wayne Co (DTW).....	CTR CAM J547 BUF BUF267 YQ0094 QUO SPICA-STAR .....	1100-0300
Detroit Satellites:		
Ann Arbor (ARB), Pontiac (PTK), Windsor (CYQG), Willow Run (YIP) .....	SYR J547 YXU PICES-STAR .....	
	or CTR CAM J547 BUF YQO .....	1100-0300
Fort Lauderdale (FLL, FXE, OPF) .....	(Water-Turbojets) COASTAL (HI)-DEP GEDIC J174 SWL CEBEE WETRO ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	1100-0300
	or (Water-Turboprops) COASTAL (HI)-DP GEDIC J174 ILM AR21 CRANS HIILL FATHR GISSH-STAR .....	1100-0300
	or (Turbojets) COASTAL (HI)-DP GEDIC J174 ORF ISO J121 CHS J79 OMN GISSH-STAR.....	1100-0300
	or (Turboprops) COASTAL (HI)-DP GEDIC J174 ORF J121 CHS J79 OMN MLB BLUF-STAR.....	1100-0300
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO ILM AR21 CRANS FISEL (RNAV)-STAR.....	1100-0300
	or (Water-Turboprops-GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 ILM AR21 CRANS FISEL (RNAV)-STAR.....	1100-0300
	or (Turbojets-GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 ORF ISO J121 CHS J79 OMN FISEL (RNAV)-STAR .....	1100-0300

Terminals	Route	Effective Times (UTC)
Fort Myers (RSW) .....	(Water-Turbojets) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO ILM AR15 HIBAC SHFTY (RNAV)-STAR.....	
Miami (MIA, TMB, HST) .....	(Turbojets-GPS or DME/DME equipped) COASTAL (HI)-DP GEDIC J174 ORF ISO J121 CHS J79 OMN HILEY (RNAV)-STAR..... or (Turbojets) COASTAL (HI)-DP GEDIC J174 ORF ISO J121 CHS J79 OMN ANNEY-STAR..... or (Water-Turbojets-GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO DIW AR22 JORAY HILEY (RNAV)-STAR..... or (Water-Turbojets) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO DIW AR22 JORAY OSOGY ENVOY YOSSE MILSY BOYUR HILEY KAINS..... or (Turboprops) COASTAL (HI)-DP GEDIC J174 ORF J121 CHS J79 OMN ANNEY-STAR.....	
Minneapolis/St Paul (MSP) .....	CTR CAM SYR J547 BUF YWT J63 TVC J522 GRB EAU-STAR.....	1100-0300
Orlando Exec (ORL) .....	COASTAL (HI)-DP GEDIC J174 ORF J121 CHS J79 OMN BITHO-STAR..... or (GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO ILM AR15 HIBACK CWRLD (RNAV)-STAR.....	1100-0300
Orlando Intl (MCO) .....	COASTAL (HI)-DP GEDIC J174 ORF J121 CHS J79 OMN BITHO-STAR..... or (Water-Turbojets) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO ILM AR15 HIBAC APOLO ORL..... or (GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 ORF J121 CHS J79 OMN CWRLD (RNAV)-STAR..... or (GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO ILM AR15 HIBAC CWRLD (RNAV)-STAR.....	1100-0300 1100-0400
Philadelphia (PHL) .....	COASTAL-DP SHERL J121 BRIGS VCN-STAR.....	1100-0300
Pittsburgh (PIT) .....	CTR HNK HNK271 J190 SLT GRACE-STAR.....	1100-0300
Raleigh-Durham (RDU) .....	PWL CMK J75 GVE SBV.....	1100-0300
St. Louis (STL) .....	PWL SAX J80 VHP VLA-STAR.....	1100-0300
Tampa (TPA) .....	PWL CMK J75 TAY LZARD-STAR.....	1100-0300
Washington Dulles (IAD) .....	PWL SAX J6 LRP DELRO-STAR.....	1100-0300
Washington Natl (DCA) .....	COASTAL-DP GEDIC J174 ATR085 ATR V308 BILIT..... or (GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 ATR085 ATR V308 LAFLN BILIT (RNAV)-STAR.....	1100-0300
West Palm Beach (PBI) .....	(Turbojets-GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 ORF ISO J121 CHS J79 OMN FRWAY (RNAV)-STAR..... or (Water-Turbojets) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO DIW AR19 AYBID MIMMI NEUBE SWOMP SANZZ CASKI..... or (Water-Turbojets-GPS or DME/DME-IRU equipped) COASTAL (HI)-DP GEDIC J174 SWL CEBEE WETRO DIW AR19 AYBID FRWAY (RNAV)-STAR.....	1100-0300

Terminals	Route or (Turbojets) COASTAL (HI)-DP GEDIC J174 ORF ISO J121 CHS J79 OMN TUXXI-STAR .....	Effective Times (UTC)
		1100-0300

## SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

Terminals	Route	Effective Times (UTC)
Traffic overflying Atlanta Center Eastbound originating South of a line from DFW to JFK:		
GRD J209 RDU J207 FKN J79 JFK DPK		
DPK-STAR .....		
BOS .....	(Jet only) GRD J209 RDU J207 FKN J79 JFK ORW-STAR .....	
	or	
	(Prop only) SIE J121 HTO V308 ORW V16	
BWI .....	WOONS .....	
	SPA J14 RIC OTT-STAR .....	
	or	
	(GPS or DME/DME-IRU equipped) SPA J14	
DCA .....	RIC RAVNN (RNAV)STAR .....	
	SPA J14 RIC IRONS-STAR .....	
	or	
	(GPS or DME/DME-IRU equipped) SPA J14	
EWR .....	RIC OJAAY (RNAV)-STAR .....	
IAD .....	SPA J14 J15 FAK DYLIN-STAR .....	
JFK .....	SPA J14 J51 FAK COATT-STAR .....	
LGA .....	GRD J209 ORF J121 SIE CAMRN-STAR .....	
PHL .....	AHN J208 HPW J191 PXT KORRY-STAR .....	
	SPA J14 J51 FAK DPNT-STAR .....	
Traffic originating East of Chicago Terminating Denver:		
DJB .....	J60 IOW DSM J144 OBH J10 LBF	
	SAYGE-STAR .....	1300-0100
BAE .....	J16 MCW ONL J114 SNY LANDR-STAR .....	
STL .....	STL J110 GCK J154 RYLIE DANDD-STAR .....	1300-0100
Traffic overflying Cleveland Center and South of SLT:		
HPN .....	(Above 250 kts) SLT J190 CFB DNY280 DNY VALRE-STAR .....	
	or	
	PSB J49 CFB220 CFB DNY280 DNY	
	VALRE-STAR .....	
	or	
	(250 kts or less) SLT J190 CFB DNY280	
	DNY NOBBI-STAR .....	
	or	
	PSB J49 CFB220 CFB DNY280 DNY	
	NOBBI-STAR .....	
Traffic originating South of Wilmington, NC:		
ILM J109 FAK DYLIN-STAR .....	1100-0300	
JFK .....	ORF J121 SIE CAMRN-STAR .....	1100-0300
LGA .....	ILM TYI HPW J191 PXT KORRY-STAR .....	1100-0300
Traffic overflying Indianapolis Center area Eastbound:		
BOS .....	ROD J29 J82 ALB GDM GDM-STAR .....	1100-0300
JFK .....	ROD J29 J70 LVZ LENDY-STAR .....	1100-0300
LGA .....	ROD J29 J146 MIP-STAR .....	1100-0300
	or	
	BKW J42 GVE KORRY-STAR .....	1100-0300
PHL .....	ROD J152 HAR V210 BUNTS .....	1100-0300
	or	
	BKW J42 GVE DPNT-STAR .....	1100-0300
PIT .....	APE CTW V443 WISKE .....	
	or	
	HNN JPU V117 WISKE .....	
TEB/MMU/CDW SATELLITES .....	(Non-Advanced Nav Aircraft only) ROD J29 JHW J70 LVZ LVZ-STAR .....	
Traffic overflying Indianapolis Center area Eastbound originating North and West of a line from DFW to JFK:		
ABE .....	RID CXR H146 .....	

Terminals	Route	Effective Times (UTC)
ACY .....	ROD J152 HAR LRP DQO ENO SIE .....	
BDL .....	ROD J29 JHW J82 WILET RKA SWEDE-STAR .....	
BWI .....	ROD J152 J162 MGW EMI-STAR .....	
CEF .....	ROD J29 JHW J82 ALB .....	
FRG .....	ROD J29 JHW J82 J522 HNK IGN V58 V91 CCC .....	
HPN .....	(Above 250 kts) ROD J29 JHW J82 WILET DNY VALRE-STAR .....	
	or	
	(250 kts or less) ROD J29 JHW J82 WILET DNY NOBBI-STAR .....	
ISP .....	(Above 250 kts) ROD J152 J178 PSB J49 HNK J68 V130 TOMES MAD V34 CREAM V16 CCC .....	
	or	
	(250 kts or less) ROD J152 J78 PSB J49 HNK DNY LOVES-STAR .....	
TEB/MMU/CDW/LDJ .....	ROD J29 JHW J70 LVZ-STAR .....	
Traffic overflying Indianapolis Center area Eastbound originating South and East of a line from DFW to JFK:		
ABE .....	BKW LDN LDN031 V377 HAR V162 DUMMR .....	
ACY .....	BKW J42 OTT SIE .....	
BWI .....	BKW J147 CSN OTT-STAR.....	
	or	
	(GPS or DME/DME-IRU equipped) BKW J147 CSN RAVNN (RNAV)-STAR .....	
DAA .....	BKW J213 V143 V4 AML .....	
DCA/ADW .....	BKW WZRRD-STAR .....	
	or	
DOV .....	BKW ELDEE (RNAV)-STAR .....	
HPN.....	BKW J42 GVE ENO-STAR .....	
IAD .....	BKW J42 OOD J150 CYN BOUNO-STAR .....	
	BKW ROYIL-STAR .....	1100-1830 and 2230-0300
	or	
	BKW SHNON (RNAV)-STAR .....	1100-1830 and 2230-0300
	or	
	GSO J14 CREWE J51 FAK COATT-STAR .....	1830-2230
	or	
	GSO J14 CREWE J51 FAK BARIN (RNAV)-STAR .....	1830-2230
LFI .....	BKW J42 MOL J24 HCM .....	
NSF .....	BKW J213 FINKS AML259 AML .....	
PHL .....	BKW J42 GVE DPNT-STAR .....	
TEB/MMU/CDW/LDJ .....	(Advanced-Nav Aircraft only) BKW J42 GVE JAIKE-STAR .....	
WRI .....	BKW J42 OTT SIE-STAR .....	
Traffic overflying Indianapolis (ZID) or Cleveland Centers (ZOB) landing in the Washington Metropolitan Area:		
BWI .....	MGW EMI-STAR .....	1100-0300
	or	
	BKW J147 CSN OTT-STAR .....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) BKW J147 CSN RAVNN (RNAV)-STAR .....	1100-0300
DCA .....	APE J30 BUCKO BUCKO-STAR .....	1100-0300
	or	
	BKW FINKS-STAR.....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) APE J30 BUCKO ELDEE (RNAV)-STAR .....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) BKW ELDEE (RNAV)-STAR .....	1100-0300
	APE J30 SHAAR WZRRD-STAR .....	
	or	

Terminals	Route	Effective Times (UTC)
	or	
	APE J30 SHAAR ELDEE .....	
	or	
	BKW ELDEE (RNAV)–STAR .....	
	or	
IAD .....	APE AIR MGW MGW121 VERNI ESL	
	ROYIL–STAR .....	
	or	
	BKW ROYIL–STAR .....	
	or	
	HVQ ROYIL–STAR .....	
	or	
	(GPS or DME/DME–IRU equipped) APE AIR	
	MGW VERNI ESL SHNON (RNAV)–STAR .....	
	or	
	BKW SHNON (RNAV)–STAR .....	
	or	
	HVQ SHNON (RNAV)–STAR .....	
Traffic overflying Elwood City VORTAC (EWC) Northbound:		
ROC .....	EWC EWC050130 GEE .....	
BUF .....	EWC DKK DKK020 WELLA .....	
SYR .....	EWC EWC050130 .....	
Traffic entering ZBW originating South and West of a line from HNK to ROC landing HYA/ACK/MVY:		
J16 .....	J16 ALB ENE V167 LFV .....	1100–0300
J94 .....	J94 ALB ENE V167 LFV .....	1100–0300
J82 .....	J82 ALB ENE V167 LFV .....	1100–0300
J190 .....	J190 ALB ENE V167 LFV .....	1100–0300
HNK .....	HNK ENE V167 LFV .....	1100–0300
Traffic entering ZBW via RBV or JFK landing HYA:		
RBV .....	J62 MVY241 MVY .....	
	or	
	FLAPE MVY .....	1100–0300
JFK .....	J79 MVY241 MVY .....	
	or	
	FLAPE MVY .....	1100–0300
Traffic entering ZBW via RBV or JFK landing MVY:		
RBV .....	LIBBE FLAPE MVY .....	1100–0300
JFK .....	J79 MVY241 MVY .....	
	or	
	LIBBE FLAPE MVY .....	1100–0300
Traffic entering ZBW via RBV or JFK landing ACK:		
RBV .....	J62 ACK .....	
	or	
	FLAPE CLAMY ACK .....	1100–0300
	or	
	RIFLE DEEPO (RNAV)–STAR .....	1100–0300
J79 J62 ACK .....		
	or	
	FLAPE CLAMY ACK .....	1100–0300
	or	
	RIFLE DEEPO (RNAV)–STAR .....	1100–0300
Traffic entering ZBW via J174 or J121 landing HYA:		
J121 .....	J121 SHLEP J62 MVY241 MVY .....	
	or	
	J121 SHLEP LIBBE FLAPE MVY .....	1100–0300
J174 .....	J174 RIFLE J62 MVY241 MVY .....	
	or	
	J174 RIFLE FLAPE MVY .....	1100–0300
Traffic entering ZBW via J174 or J121 landing MVY:		
J121 .....	J121 SHLEP J62 MVY241 MVY .....	
	or	
	J121 SHLEP LIBBE FLAPE MVY .....	1100–0300
J174 .....	J174 RIFLE J62 MVY241 MVY .....	
	or	
	J174 RIFLE LIBBE FLAPE MVY .....	1100–0300

Terminals	Route	Effective Times (UTC)
Traffic entering ZBW via J174 or J121 landing ACK:		
J121 .....	J121 SHLEP J62 ACK .....	
	or	
	J121 SHLEP FLAPE CLAMY .....	1100-0300
J174 .....	J174 RIFLE J62 ACK .....	
	or	
	J174 RIFLE FLAPE CLAMY .....	1100-0300
	or	
	J174 RIFLE DEEPO (RNAV)-STAR .....	1100-0300

## HIGH ALTITUDE—SINGLE DIRECTION ROUTES

Airway	Segment Fixes	Direction Effective	Effective Times (UTC)
J6 .....	Lancaster, PA to Little Rock, AR .....	Southwest	1100-0300
J8 .....	Charleston, WV to Casanova, VA .....	East	1100-0300
J14 .....	Greensboro, NC to Richmond, VA .....	Northeast	1100-0300
J22 .....	Montebello, VA to Pulaski, VA .....	Southwest	1100-0300
J30 .....	Joliet, IL to TRIXY Int., VA .....	East	1100-0300
J34 .....	Bellaire, OH to TRIXY Int., VA .....	East	1100-0300
J37 .....	Coyle, NJ to Spartanburg, SC .....	Southwest	1100-0300
J40 .....	Wilmington, NC to Richmond, VA .....	North	1100-0300
J42 .....	Texarkana, AR to Robbinsville, NJ .....	Northeast	1100-0300
J48 .....	Pottstown, PA to Foothills, GA .....	Southwest	1100-0300
J51 .....	Columbia, SC to Yardley, NJ .....	Northeast	1100-0300
J52 .....	Columbia, SC to Richmond, VA .....	Northeast	1100-0300
J55 .....	Florence, SC to HUBBS Int., VA .....	Northeast	1100-0300
J61 .....	Philipsburg, PA to EDDYS Int., VA .....	South	1100-0300
J75 .....	Modena, PA to Greensboro, NC .....	Southwest	1100-0300
J109 .....	Wilmington, NC to Buffalo, NY .....	North	1100-0300
J134 .....	Linden, VA to Henderson, WV .....	West	1100-0300
J147 .....	Beckley, WV to Casanova, VA .....	Northeast	1100-0300
J149 .....	Armcl, VA to Rosewood, OH .....	West	1100-0300
J150 .....	Gordonsville, VA to Hampton, NY .....	East	1100-0300
J162 .....	Bellaire, OH to Martinsburg, WV .....	East	1100-0300
J165 .....	Charleston, SC to Richmond, VA .....	North	1100-0300
J191 .....	Wilmington, NC to Robbinsville, NJ .....	North	1100-0300
J193 .....	HUBBS Int., VA to Wilmington, NC .....	South	1100-0300
J207 .....	Florence, SC to Franklin, VA .....	Northeast	1100-0300
J208 .....	Athens, GA to Hopewell, VA .....	Northeast	1100-0300
J209 .....	Greenwood, SC to Norfolk, VA .....	Northeast	1100-0300
J211 .....	Westminster, MD to Johnstown, PA .....	Northwest	1100-0300
J213 .....	Beckley, WV to Armcl, VA .....	East	1100-0300
J518 .....	Baltimore, MD to Indian Head, PA .....	Northwest	1100-0300

## Q-ROUTES

### Q-ROUTES REGULATORY

**Q1, Q3, Q5, Q7, Q9 and Q11 are preferred single direction (Southbound) Q routes; flight planning Northbound not authorized.**

Q routes are RNAV routes that require the use of GNSS or DME/DME/IRU RNAV, unless otherwise indicated. Please note that this section does not apply to Q routes in the Gulf of Mexico. Gulf of Mexico Q routes are explained in the Southeast and South Central A/FD volumes. Q routes listed in this A/FD volume have at least part of one of their leg segments within this volume's area of coverage.

GNSS and DME/DME/IRU RNAV operations are authorized along Q routes at FL 180 and above. GNSS and DME/DME/IRU RNAV MEAs will only be published if above FL 180.

DME facilities that have been assessed for RNAV operations are listed below. Q routes with no DME facilities listed are limited to GNSS RNAV operations only. Those routes will have an enroute chart note "GNSS REQUIRED".

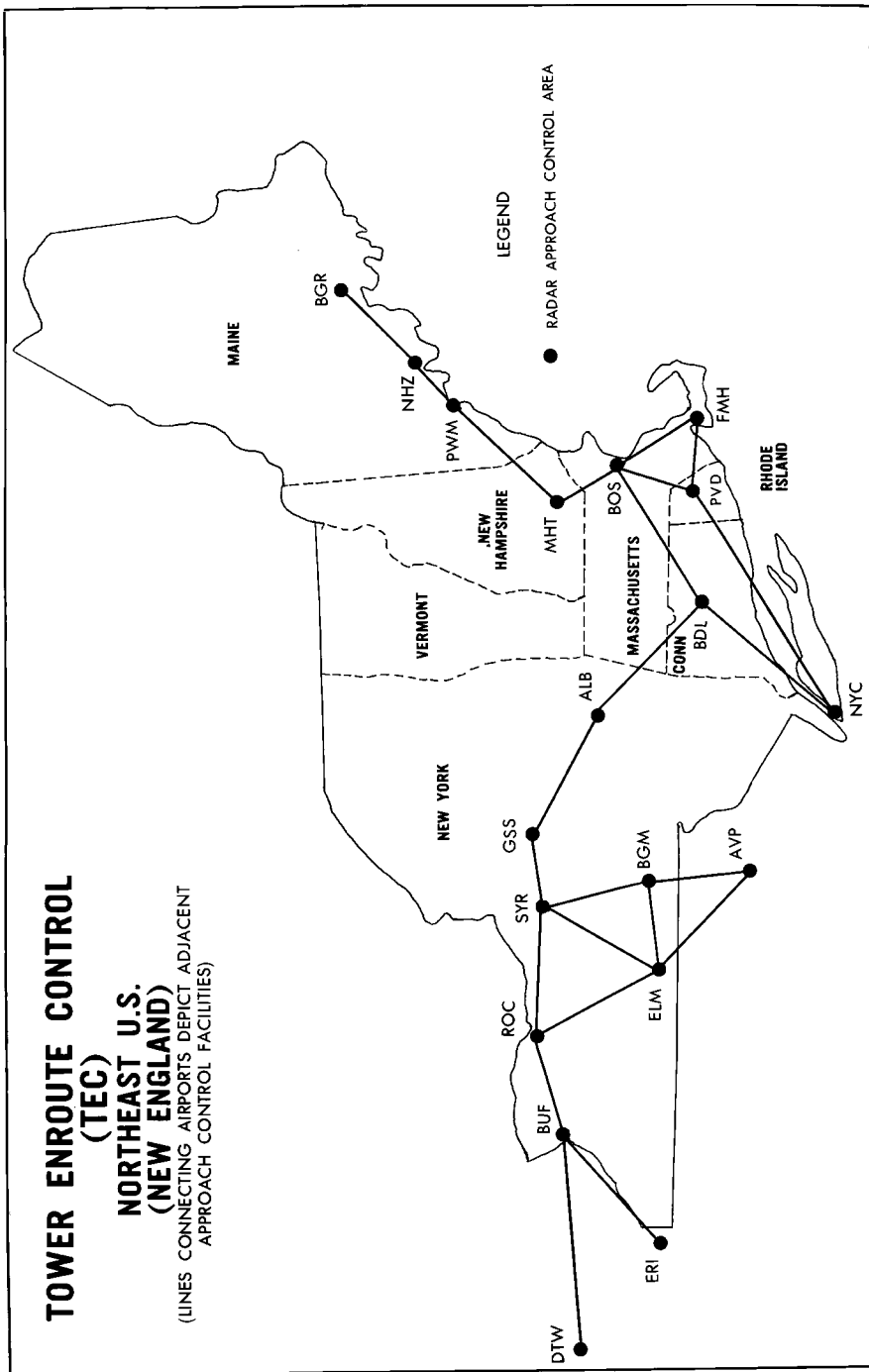
Route	Segment	DME
<b>Q1</b>	ELMAA-ERAVE	BTG, OLM, HQM, HUH, UBG
	ERAVE-EASON	BTG, OLM, HQM, HUH, LTJ, CVO, DSD, OED, UBG, ONP, EUG
	EASON-EBINY	CVO, DSD, OED, BTG, UBG, ONP, EUG, LMT
	EBINY-ENVIE	CVO, OED, EUG, LMT, RBL, ENI, ONP, FJS
	ENVIE-ETCHY	OED, PYE, OAK, LIN, ECA, LMT, RBL, ENI, SAC, FJS
<b>Q2</b>	ETCHY-POINT REYES	LIN, ECA, RBL, ENI, SAC, OAK
	BOILE-HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI-HOBOL	BZA, GBN, BLH, EED, PXR, IPL, TFD, DRK, TUS
	HOBOL-ITUCO	TFD, GBN, BLH, PXR, TUS, CIE, SSO
	ITUCO-NEWMAN	EWM, TFD, PXR, CIE, SSO, TUS, TCS
<b>Q3</b>	FEPOT-FAMUK	OLM, TOU, HQM, CVO, BTG, DSD, LTJ, UBG, ONP, EUG
	FAMUK-FRFLY	BTG, DSD, OED, CVO, EUG, ONP, UBG, RBL, LMT
	FRFLY-FINER	OED, EUG, RBL, LMT, ENI, CVO, FJS
	FINER-FOWND	OED, PYE, ECA, LIN, OAK, ENI, RBL, LMT, SAC, FJS
	FOWND-POINT REYES	LIN, ECA, PYE, RBL, SAC, ENI
<b>Q4</b>	BOILE-HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI-SCOLE	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SCOLE-SPTFR	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SPTFR-ZEBOL	EED, IPL, BZA, GBN, TFD, PXR, BLH
	ZEBOL-SKTR	PXR, BLH, BZA, GBN, TFD, TUS, SSO, CIE, SVC, TCS
<b>Q5</b>	SKTR-EL PASO	EWM, CUS, SVC, TCS, SSO, CIE, ELP, DMN, CME
	HAROB-HISKU	OLM, ONP, CVO, EUG, HQM, UBG, BTG, LTJ, DSD, HUH
	HISKU-HARPR	ONP, CVO, EUG, LTJ, DSD, UBG, BTG, RBL, OED, LMT, FJS, LKV
	HARPR-HOMEG	CVO, EUG, OED, RBL, LMT, ENI, FJS, LKV
	HOMEG-HUPTU	SAC, PYE, LIN, OAK, ECA, LMT, RBL, ENI, OED, FJS
<b>Q7</b>	HUPTU-STIKM	OAK, ECA, PYE, LIN, SAC, ENI, RBL
	JINMO-JOGEN	CVO, HQM, LTJ, UBG, BTG, ONP, IMB, EUG, OLM, DSD, YKM, PDT, SEA
	JOGEN-JUNEJ	LTJ, IMB, UBG, EUG, CVO, RBL, LMT, FMG, DSD, LKV, OED, BTG
	JUNEJ-JAGWA	RBL, LMT, FMG, LIN, SAC, ECA, ENI, MOD, SWR, OAK, LKV, CZQ, AVE, SNS
	JAGWA-AVENAL	OAK, MOD, ECA, EHF, PRB, AVE, SNS, CZQ
<b>Q9</b>	SUMMA-SMIGE	OLM, UBG, SEA, YKM, BTG, QNP, IMB, HQM, PDT, EUG, LTJ, CVO, DSD, OED, EPH, MWH
	SMIGE-SUNBE	IMB, UBG, EUG, IMB, RBL, LMT, FMG, SAC, OED, CVO, LKV, DSD, BTG
	SUNBE-REBRG	RBL, LMT, FMG, SAC, ECA, MVA, CZQ, OAK, EHF, PMD, LKV, LIN, MOD, AVE, OED, SWR
	REBRG-DERBB	CZQ, PMD, EHF, LAX, RZS, AVE, MOD, ECA
	PAAGE-PAWLI	EPH, UBG, CVO, EUG, HQM, YKM, OLM, PDT, BTG, ONP, IMB, LTJ, DSD, LKV, OED, SEA
<b>Q11</b>	PAWLI-PITVE	EUG, FMG, SAC, IMB, LKV, OED, DSD, RBL, LMT, CVO, REO
	PITVE-PUSHH	FMG, SAC, LIN, SWR, MOD, OAL, RBL, LKV, LMT, MVA, CZQ
	PUSHH-LOS ANGELES	SAC, ECA, FMG, LIN, OAL, MOD, EHF, LAX, PMD, PDZ, HEC, OCN, CZQ, AVE, RZS
	All segments	None; GNSS required
	All segments	None; GNSS required
<b>Q13</b>	PLESS-NASHVILLE	ENL, GQO, PXV, BNA, IUU, FAM, BWG, CSX
<b>Q15</b>	CORONA-HONDS	CNX, ABQ, ACH, ONM, TXO, LVS, TCC, CME
<b>Q19</b>	HONDS-UNNOS	CNX, INK, CME, TXO, TCC
<b>Q20</b>	UNNOS-FUSCO	FST, ACH, INK, CME, SJT, TXO, TCC
	FUSCO-JUNCTION	ABI, CWK, CSI, INK, LZZ, JCT, SJT, STV, FST
<b>Q21</b>	JONEZ-RAZORBACK	BYP, EOS, TUL, TXK, ADM, RZC, OKM
<b>Q22</b>	GUSTI-OYSTY	AEX, DAS, MCB, LLA, BTR, LCH, HRV, LFT, LEV
	OYSTY-ACMES	RQR, GCV, MCB, BTR, PCU, GPT, HRV, LEV, SJI
	ACMES-CATLN	SJI, MGM, MCB, BFM, GPT, GCV, HRV, CEW, MVC, PCU, MEI

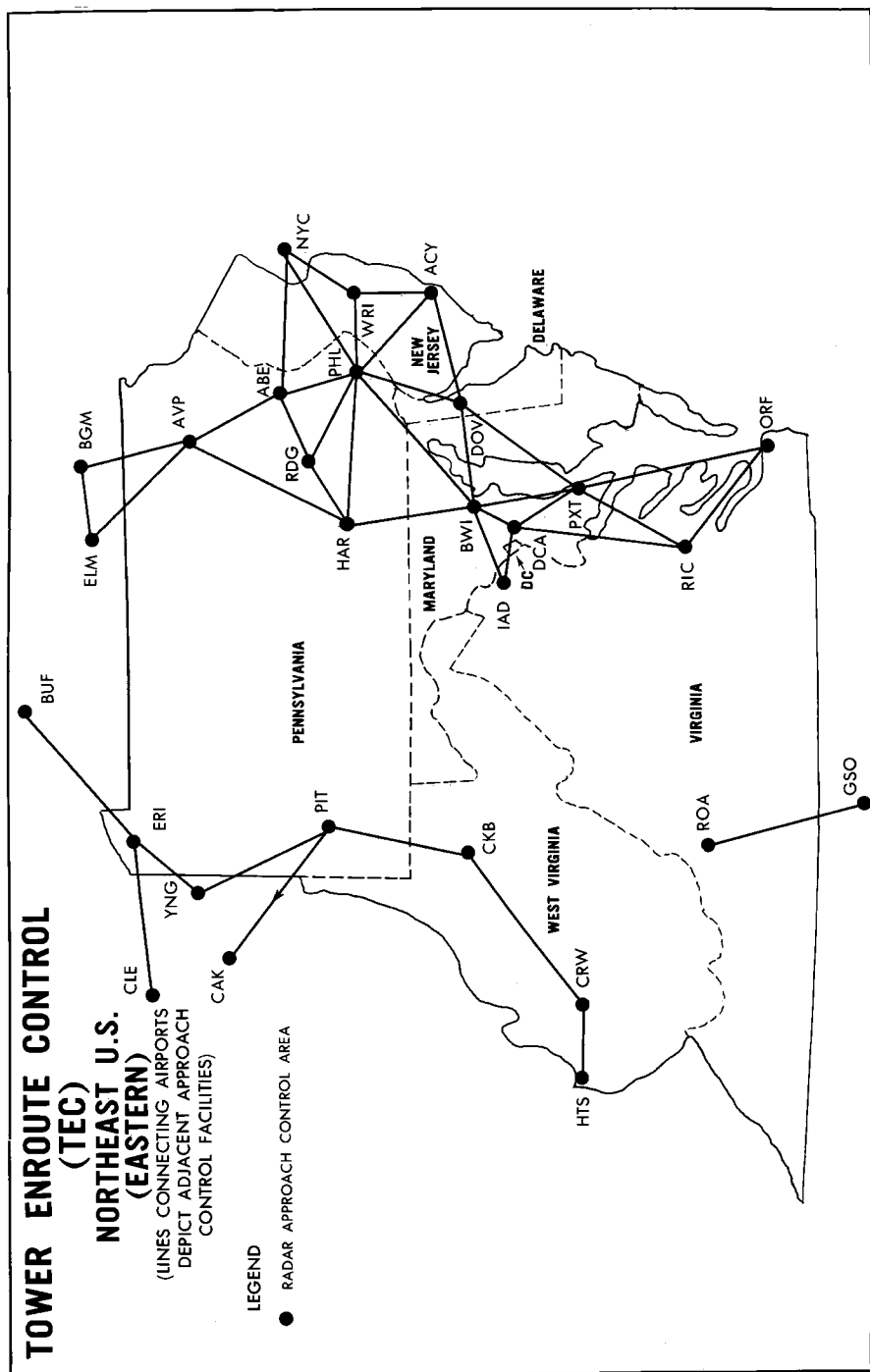
Route	Segment	DME
Q23	FORT SMITH–RAZORBACK	OKM, RZC, EOS, TUL
Q24	LAKE CHARLES–BATON ROUGE	AEX, DAS, LCH, MCB, LFT, BTR
	BATON ROUGE–IRUBE	AEX, LEV, MCB, LCH, RQR, HRV, BTR, GCV, MCB, PCU, SJI, LBY
	IRUBE–PAYTN	GCV, MCB, JYU, PCU, MEI, HRV, CEW, SJI
Q25	MEEOW–WALNUT RIDGE	ELD, MEM, LIT, FAM, RZC
	WALNUT RIDGE–WLSUN	MEM, STL, BWG, PXV, ENL, FAM, ARG, BNA, CSX, TTH
	WLSUN–POCKET CITY	BWG, PXV, ENL, BNA, TTH
Q26	WALNUT RIDGE–DEVAC	LIT, JKS, GQO, MEM, BNA, FAM, ARG, DYR, VUZ, RMG
Q27	FORT SMITH–ZALDA	OKM, SGF, RZC, EOS, TUL
Q28	GRAZN–PYRMD	EIC, LIT, ELD, OKM, TXK
	PYRMD–HAKAT	ARG, LIT, FAM, ELD, SGF, RZC, MEM, TXK
	HAKAT–ESTEE	ARG, LIT, FAM, SGF, MEM
	ESTEE–POCKET CITY	ARG, CSX, FAM, PXV, ENL, MEM, STL, BWG, TTH, BNA
Q29	HARES–MEMPHIS	MEM, ARG, LIT, JAN, ELD, SQS
	MEMPHIS–SIDAE	MEM, PXV, BNA, BWG, ARG, ENL
	SIDAE–POCKET CITY	PXV, TTH, BWG, ENL
Q30	SIDON–VULCAN	GLH, MEM, VUZ, JAN, JYU, MEI, MGM, SQS, RMG
Q31	DHART–JODOX	SQS, LIT, TXK
	JODOX–MARVELL	SQS, LIT, ELD, MEM, ARG
	MARVELL–TIIDE	ARG, BWG, PXV, FAM, LIT, MEM, ENL, TTH
	TIIDE–POCKET CITY	BWG, PXV, ENL, TTH
Q32	EL DORADO–GAGLE	AEX, JAN, MEM, SQS, SWB, ELD, LIT, TXK
	GAGLE–CRAMM	JAN, SQS, MEM, ARG, VUZ, BNA, LIT
	CRAMM–NASHVILLE	BWG, MEM, VUZ, BNA, GQO
	NASHVILLE–SWAPP	BWG, IIU, PXV, VXV, BNA, GQO
Q33	DHART–LITTLE ROCK	AEX, ELD, LIT, TXK, SWB, ARG, MEM, SQS
	LITTLE ROCK–PROWL	ELD, SGF, FAM, LIT, ARG, MEM, RZC, CSX, STL
Q34	TEXARKANA–MATIE	LIT, SWB, TXK, BYP, EIC, ELD, SQS
	MATIE–MEMPHIS	LIT, ARG, MEM, ELD, SQS
	MEMPHIS–SWAPP	BWG, ARG, MEM, MKL, SQS, PXV, BNA, GQO, IIU, VXV
Q35	KIMBERLY–NEERO	LTJ, PDT, DSD, IMB, LKV, BOI, REO, BAM, SDO
	NEERO–WINEN	BQU, SDO, BAM, REO, BVL, ILC, DTA, ELY, CDC, MLF, BCE
	WINEN–CORKR	CDC, BCE, BLD, ILC, MLF, TBC, PGS, INW, DRK
	CORKR–DRAKE	TBC, BCE, BLD, DRK, PGS, FLG, GCN, INW, TFD
Q36	RAZORBACK–TWITS	RZC, MEM, SGF, BUM, TUL, EOS, FAM, ARG, LIT
	TWITS–DEPEC	MEM, GQO, BNA, BWG, FAM, ARG, PXV, IIU
	DEPEC–NASHVILLE	GQO, BWG, BNA, PXV, IIU
	NASHVILLE–SWAPP	VXV, BWG, BNA, GQO, PXV, IIU
Q38	ROKIT–INCIN	DAS, LCH, SWB, IAH, LFK, HUB, AEX
	INCIN–LAREY	JAN, MCB, SWB, AEX
	LAREY–BESOM	JAN, JYU, MEI, SQS, VUZ
Q40	ALEXANDRIA–DOOMS	AEX, SWB, LCH, JAN, HEZ, MCB
	DOOMS–WINAP	JAN, SQS, MEI, MCB
	WINAP–MISLE	MEI, VUZ, JYU
Q42	KIRKSVILLE–STRUK	CID, IOW, UIN, LMN, IRK, BDF, STL, DEC, ENL, CSX
	STRUK–DANVILLE	ENL, IOW, UIN, BDF, DEC, STL, CSX, SPI, TTH, BVT, JOT, VHP, OXI, ENL, OKK, OBK, GIJ, FWA, GSH, IRK
	DANVILLE–MUNCIE	GIJ, SPI, BDF, OBK, OKK, VHP, BVT, DEC, GSH, FWA, JOT, TTH, OXI, ROD, FLM
	MUNCIE–HIDON	FLM, VHP, GSH, TTH, GIJ, OKK, FWA, ROD, OXI, CRL, GSH, APE, DJB, DXO, HNN, AIR, HVQ, CXR, EWC
	HIDON–BUBAA	AIR, APE, HNN, CXR, HVQ, EWC, DJB
	BUBAA–PSYKO	AIR, APE, DJB, CXR, HNN, EWC, SLT, CSN, JHW, ETG, PSB
	PSYKO–BRNAN	PSB, JHW, EWC, AIR, ETG, CSN, EMI, SLT
	BRNAN–MAALS	EMI, SLT, CSN, EWC, PSB, ETG, SAX, RBV, HNK, HUO, SIE
	MAALS–SUZIE	ETG, EMI, CSN, HUO, SIE, JFK, PSB, SLT, HNK
	SUZIE–EAST TEXAS	JFK, EMI, PSB, SLT, HNK, SIE, RBV, SAX, HUO, CYN
	EAST TEXAS–ELIOT	HUO, RBV, EMI, CYN, SAX, JFK, PSB, HNK
Q104	DEFUN–HEVVN	PIE, PZD, CRG, SZW, TAY, JYU, CEW, MGM, OTK, CRG
	HEVVN–PLYER	PIE, ORL, OMN, SRQ, TAY, LAL, CRG, SZW, PZD
	PLYER–SWABE	PIE, ORL, OMN, SRQ, TAY
	SWABE–ST PETERSBURG	LAL, ORL, OMN, SRQ, PHK, PIE
	ST PETERSBURG–CYPRESS	PHK, PBI, SRQ, PIE, VRB, ORL, FLL, LAL, OMN



Route	Segment	DME
<b>Q106</b>	SMELZ-BULZI BULZI-DRABK DRABK-GADAY	LAL, ORL, OMN, PHK, PIE, CRG, VRB, TAY, OTK, PZD, AMG, SZW AMG, PZD, TAY, CRG, SZW, MGM, OTK, JYU, CEW, SJI MGM, PZD, OTK, JYU, SZW, CEW, SJI
<b>Q108</b>	GADAY-CLAWZ	MGM, SJI, CEW, JYU, PZD, OTK, MCN, SZW, LGC, TAY, AMG
<b>Q110</b>	THNDR-JAYMC JAYMC-RVERO RVERO-KPASA KPASA-BRUTS BRUTS-GULFR GULFR-FEONA	SRQ, VRB, PHK, PIE, LAL, VKZ, ORL, PBI VKZ, VRB, PHK, PIE, LAL, SRQ, ORL, OMN, PBI, DHP OMN, PIE, PBI, SRQ, ORL, LAL SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG OMN, AMG, CRG, SZW, PIE, TAY, PZD, OTK TAY, MCN, PZD, CRG, OTK, SZW, AMG, MCN, ATL, MGM
<b>Q112</b>	DEFUN-HEVVN HEVVN-INPIN	PIE, OTK, CRG, OMN, LAL, SZW, SRQ, ORL, VRB JYU, PZD, CEW, SZW, MGM, OTK, TAY, AMG, PIE, CRG
<b>Q116</b>	KPASA-BRUTS BRUTS-GULFR GULFR-CEEYA	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK MCN, AMG, PZD, OTK, SZW, TAY
<b>Q118</b>	BRUTS-LENIE	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK, MCN
<b>Q501</b>	VIXIS-GOPHER	ECK, FNT, APN, SSM, GRR, MBL, SAW, BAE, MNM, DLL, AUW, ODI, STE, FGT, EAU, DLH, GEP, BRD, MCW, MSP, ASP, TVC, GRB, RWF
<b>Q502</b>	GOPHER-SOBME KENPA-GOPHER	FGT, BRD, MCW, GEP, ABR, FAR, DLH, ODI, RWF, FSD SSM, FNT, ECK, APN, SAW, GRB, BAE, DLL, AUW, ODI, FGT, DLH, EAU, MCW, MSP, MNM, ASP, TVC, GEP, RWF, BRD
<b>Q504</b>	GOPHER-SOBME NOTAP-CESNA	FGT, DLH, ODI, MCW, ABR, FAR, MSP, GEP, RWF, FSD, BRD SSM, ECK, APN, GLR, PLN, ISQ, MNM, DLL, RHI, DLH, GEP, FGT, ODI, ASP, TVC, SAW, GRB, BRD
<b>Q505</b>	CESNA-HEMDI OMAGA-RIMBE RIMBE-CESNA CESNA-HEMDI	ODI, GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, DLL, BRD SSM, TVC, ASP, SAW, GRB SSM, RHI, DLL, DLH, GEP, FGT, TVC, SAW, GRB, BRD, ODI GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, BRD, ODI, GRB

\*Denotes Critical DME Facility





# TOWER ENROUTE CONTROL (TEC)

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Within the national airspace system it is possible for a pilot to fly IFR from one point to another without leaving approach control airspace. This is referred to as "tower enroute" which allows flight beneath the enroute structure. The tower enroute concept has been expanded (where practical) by reallocating airspace vertically/geographically to allow flight planning between city pairs while remaining within approach control airspace. Pilots are encouraged to solicit tower enroute information from FSS's and to use the route descriptions provided in this directory when filing flight plans. Other airways which appear to be more direct between two points may take the aircraft out of approach control airspace thereby resulting in additional delays or other complications. All published TEC routes are designed to avoid enroute airspace and the majority are within radar coverage. Additional routes and other changes will appear in forthcoming editions as necessary. The acronym "TEC" should be included in the remarks section of the flight plan. This will advise ATC that the pilot intends to remain within approach control airspace for the entire flight. The following items should be noted before using the graphics and route descriptions:

1. The graphic is not to be used for navigation nor detailed flight planning. Not all city pairs are depicted. It is intended to show general geographic areas connected by tower enroute control. Pilots should refer to route descriptions for specific flight planning.
2. The route description contains four columns of information: i.e., the approach control area (listed alphabetically) within which the departure airport is located (check appropriate flight information publications), the specific route (airway, radial, etc.), the highest altitude allowed for the route, and the destination airport (listed alphabetically). Be advised, many destination airports are associated with a larger primary airport. Check the legend preceding this listing for this association.
3. The word "DIRECT" will appear as the route when radar vectors will be used or no airway exists. Also, this indicates that a Standard Instrument Departure (SID) or Standard Terminal Arrival Route (STAR) may be applied by ATC.
4. When a NAVAID or intersection identifier appears with no airway immediately preceding or following the identifier, the routing is understood to be DIRECT to or from that point unless otherwise cleared by ATC.
5. Routes beginning or ending with an airway indicate that the airway essentially overflies the airport or radar vectors will be applied.
6. Where more than one route is listed to the same destination, the pilot may select which route is desired. Unless otherwise stated, all routes may be flown in either direction.
7. Routes are effective only during each respective terminal facility's normal operating hours. Pilots are cautioned to check NOTAMS to ensure appropriate terminal facilities will be operating for the planned flight time.
8. All identifiers used for NAVAIDS, airports, and intersections are official identifiers.
9. Altitudes are listed in thousands of feet. ATC may require altitude changes to maintain flight within approach control airspace. ATC will provide radar monitoring and, if necessary, course guidance if the highest altitude assigned by ATC is below the Minimum Enroute Altitude (MEA).
10. Although all airports are not listed under the destination column, IFR flight may be planned to satellite airports in proximity to major airports via the same routing.
11. Flight plans should be filed with a Flight Service Station (FSS).

## TOWER ENROUTE CONTROL CITY PAIRS

- (1) Single Engine only.
- (2) Props less than 210 KT IAS.
- (3) Props less than 250 KT IAS.
- (4) Jets and Props greater than 210 KT IAS.
- (5) Jets and Props greater than 250 KTS IAS.

Boston—NO SATS = BED/LWM/BVY/FIT/6B6/2B2

SO SATS = BOS/OWD/1B9/3B2

Bradley = BDL/BAF/CEF/7B2

Bradley/Hartford = HFD/MMK/UJD/4B8

Bradley/Worcester = ORH/3B0/1B6

Manchester = MHT/ASH/CON/LCI

Manchester/Pease = PSM/DAW/3B4

New York/Bridgeport = BDR/HVN/OXC/3B9

Portland = PWM/IWI/NHZ/RKD

Portland/Augusta = AUG/LEW/WVL/IZG/81B

Providence = PVD/EWB/TAN/SFZ/UUU/5B3

Providence/Groton = GON/WST/BIJ/OB8

### Approach Control Area (Including Satellites)

Albany

Route	Highest Altitude	Destination
..... ALB GDM V431 LOBBY	10000	Bedford
..... V14 V428 V29	6000	Binghamton
..... ALB GDM V431 REVER	10000	Boston
..... Direct	10000	Bradley
..... V130	10000	Bradley
..... ALB V44 DENNA	10000	Bridgeport
..... V14	10000	Buffalo
..... (3) ALB V123 HAARP	10000	Danbury

Approach Control Area  
(Including Satellites)

	Route	Highest Altitude	Destination
	..... (4) ALB V157 HAARP	10000	Danbury
	..... V14 V428	8000	Elmira
	..... V2	10000	Griffiss
	..... ALB V130 BDL GON	10000	Groton
	..... Direct	10000	Hartford
	..... ALB CTR PVD V151 GAILS	10000	Hyannis
	..... V14 V428	8000	Ithaca
	..... ALB EEN MHT	10000	Manchester
	..... ALB CTR V405 PVD	10000	Marthas Vineyard
	..... ALB CTR PVD PVD167 NEWBE DEEPO	10000	Nantucket
	..... ALB GDM V431 LOBBY	10000	Norwood
	..... ALB CAM CON	10000	Portland
	..... ALB CON	10000	Portsmouth
	..... ALB CTR PVD	10000	Providence
	..... ALB CTR PVD V151 GAILS	10000	Provincetown
	..... V2	10000	Rochester
	..... V14 BEEPS	10000	Rochester
	..... ALB V123 TRESA	10000	Stewart
	..... ALB V130 MOLDS	10000	Worcester
Allentown	..... FJC V149 LHY	8000	Albany
	..... ETX LHY	8000	Albany
	..... V149 MAZIE ARD CYN	5000	Atlantic City
	..... V93 LRP	8000	Baltimore
	..... ETX V162 DUMMR V93 LRP	6000	Baltimore
	..... V39 LRP	8000	Baltimore
	..... V130	10000	Bradley
	..... Direct	10000	Bradley
	..... FJC STW	5000	Caldwell
	..... (2) ETX V30 SBJ	5000	Farmingdale
	..... ETX V162 HAR	8000	Harrisburg
	..... Direct	10000	Hartford
	..... ETX ETX004 WEISS	4000	Hazleton
	..... ETX V39	4000	Lancaster
	..... (2) ETX BWZ	5000	Newark
	..... (4) FJC BWZ	6000	Newark
	..... FJC V149 MAZIE ARD	5000	North Philadelphia
	..... (2) ETX V29 PTW (piston only)	4000	Philadelphia
	..... (4) FJC V149 MAIZE (turbojet only)	7000	Philadelphia
	..... ETX V29 PTW (turboprop only)	5000	Philadelphia
	..... FJC V6 SEG	8000	Pittsburgh
	..... ETX V30 SEG	8000	Pittsburgh
	..... V276 RAV	8000	Pittsburgh
	..... FJC RAV	8000	Pittsburgh
	..... ETX V39 FLOAT	4000	Reading
	..... ETX V164 FQM	6000	Rochester
	..... FJC V162 HUO	5000	Westchester Co.
	..... V93 LVZ	7000	Wilkes-Barre
	..... FJC V149 RITTY	7000	Wilkes-Barre
	..... ETX V29 PTW	4000	Wilmington
Atlantic City	..... V229 DIXIE V276 ARD	5000	Allentown
	..... V1 DIXIE V276 ARD (Single Engine only)	5000	Allentown
	..... V1 ATR V308 OTT	4000	Andrews AFB
	..... LEEAH V268 BAL	4000	Baltimore
	..... V1 JFK V229 HFD CLOWW (Single engine and /E, /F, /G only)	5000	Bangor
	..... V1 JFK V229 HFD CLOWW (Single engine and /E, /F, /G only)	5000	Bar Harbor
	..... V1 JFK V229 HFD HFD053 DREEM (Single Engine only)	5000	Boston (North)
	..... V1 JFK V229 HFD V3 WOONS (Single Engine only)	5000	Boston
	..... V1 JFK V229 HFD FOSTY WOONS (Single engine and /E, /F, /G only)	5000	Boston
	..... V1 JFK V229 BDR BDR014 JUDDS (Single Engine only)	5000	Bradley
	..... V184 ZIGGI JFK 210 JFK V229 BDR (Twins only, n/a between 1400-2100)	5000	Bridgeport
	..... HOWIE V1 JFK V229 BDR (Single engine only)	5000	Bridgeport
	..... V184 OOD DQO V469 HAR	4000	Capital City

Approach Control Area  
(Including Satellites)

Route	Highest Altitude	Destination
..... LEEAH V268 ENO	4000	Dover
..... LEEAH V268 BAL BAL294 KROLL AML (No jets)	4000	Dulles
..... LEEAH V229 PXT V16 V286 CSN (Jets only)	4000	Dulles
..... V268 ENO V29 AVP V147	4000	Elmira
..... V1 JFK BDR MAD MAD126 MONDI (Single Engine only)	5000	Groton
..... V184 OOD DQO V469	4000	Harrisburg
..... V1 JFK V229 (Single engine only)	5000	Hartford
..... V1 JFK V229 HFD V167 PVD V151 GAILS (Single Engine only)	5000	Hyannis
..... V1 JFK CCC (Single Engine only)	5000	Islip
..... V184 ZIGGI JFK210 JFK CCC (No Single Engine; n/a btn 1400-2100 local)	5000	Islip
..... V1 JFK (Single Engine only)	5000	Kennedy
..... V184 ZIGGI JFK210 JFK (Jets/multiengine Props only; no OTFC)	5000	Kennedy
..... V1 DIXIE V276 RBV V123 NANCI (Single Engine only)	5000	LaGuardia
..... V229 DIXIE V276 RBV V123 NANCI (No Single Engine)	5000	LaGuardia
..... V229 DIXIE V276 RBV V123 NANCI (Jets only)	7000	LaGuardia
..... V184 OOD DQO DQO319 LRP144 LRP	4000	Lancaster
..... HOWIE V1 CYN	5000	McGuire AFB
..... VCN V16 CYN	7000	McGuire AFB
..... V229 PANZE (Helicopters only)	3000	McGuire AFB
..... SIE V44 PANZE	5000	McGuire AFB
..... SIE V139 HARBO	5000	McGuire AFB
..... V1 JFK V229 HFD CLOWW (Single engine and /E, /F, /G only)	5000	Manchester
..... V1 JFK V229 BDR MAD (Single Engine only)	5000	Meriden Markham
..... V1 JFK V229 BDR MAD V475 V188 GON V374 (Single engine only)	5000	Martha's Vineyard
..... V1 JFK V229 BDR MAD V475 V188 GON	5000	Nantucket
..... V58 NEWBE DEEPO (Single Engine only)	5000	Newark
..... V229 DIXIE V276 RBV RBV005 OWBIE (Non-jets only)	5000	Newark
..... V229 DIXIE V276 RBV V249 METRO	5000	Newark
..... V229 DIXIE V276 RBV RBV005 OWBIE (Jets only)	6000	Newark
..... V1 JFK V229 BDR MAD V475 V188 GON V374 MINNK (Single Engine only)	5000	New Bedford
..... V229 DIXIE V276 ARD	5000	North Philadelphia
..... ACY V184 OOD	4000	Philadelphia
..... V1 JFK V229 HFD CLOWW (Single engine and /E, /F, /G only)	5000	Portland
..... V1 JFK V229 BDR MAD V475 V188 GON (Single Engine only)	5000	Providence
..... V1 JFK V229 HFD V167 PVD V151 GAILS (Single Engine only)	5000	Provincetown
..... V1 JFK V229 BDR MAD V475 V188 GON (Single Engine only)	5000	Quonset
..... V184 OOD DQO MXE MXE334 HUMEL	4000	Reading
..... V1 SBY	6000	Salisbury
..... SIE V139	4000	Snow Hill
..... V1 ATR	6000	Snow Hill
..... V1 JFK V229 BDR MAD V475 V188 GON V374 MINNK (Single Engine only)	5000	Taunton Muni
..... V229 PANZE V184 ZIGGI V276 RBV V249 METRO (Turbojet only)	4000	Teterboro
..... LEEAH V1 ATR V308 OTT (Props only)	4000	Washington
..... V229 DIXIE V276 RBV V249 SAX V39 BREZY (Multi-engine Props only)	5000	Westchester Co.
..... V1 DIXIE V276 RBV V249 SAX V39 BREZY (Multi-engine props only)	5000	Westchester Co.
..... V1 JFK V229 HFD V1 GRAYM (Single Engine only)	5000	Worcester

**Approach Control Area**  
**(Including Satellites)**  
 Baltimore

Route	Highest Altitude	Destination
V93 LRP V39 ETX	7000	Allentown
V268 LEEAH V229	7000	Atlantic City
V268 ENO V16 JFK V229 HFD CLOWW (Single engine and /E, /F, /G only)	7000	Bangor
V268 ENO V16 JFK V229 HFD CLOWW (Single engine and /E, /F, /G only)	7000	Bar Harbor
V93 LRP V499	7000	Binghamton
V268 ENO V16 JFK V229 HFD HFD053 DREEM (Single engine only)	7000	Boston (North)
V268 ENO V16 JFK V229 HFD V3 WOONS (Single Engine only)	7000	Boston
V268 ENO V16 JFK V229 HFD FOSTY WOONS (Single engine and /E, /F, /G only)	7000	Boston
V268 ENO V16 JFK V229 BDR BDR014 JUDDS (Single Engine only)	7000	Bradley
V268 ENO V16 JFK V229 BDR (Single Engine only)	7000	Bridgeport
V31 HAR	7000	Capital City
V268 ENO Direct	7000	Dover AFB
V268 ENO V16 JFK V229 BDR MAD MAD126 MONDI (Single Engine only)	5000	Dulles
EMI EMI321 HGR089 HGR	7000	Groton
HAR	6000	Hagerstown
V268 ENO V16 JFK	7000	Harrisburg
V268 ENO V16 JFK (Single Engine)	7000	Islip
V214 DQO V479 RUUTH V123 Nanci	7000	Kennedy
V499 LRP	7000	LaGuardia
V214 DQO OOD V312 CYN GXU	5000	Lancaster
V268 ENO V16 JFK V229 HFD CLOWW (Single engine and /E, /F, /G only)	5000	McGuire
V268 ENO V16 JFK V229 BDR MAD V475 V188 GON V374 MVY (Single Engine only)	7000	Manchester
V214 MRB	8000	Martha's Vineyard
V268 ENO V16 JFK V229 BDR MAD V475 V188 GON V58 NEWBE DEEPO (Single Engine only)	7000	Martinsburg
BAL V378 MXE ARD V214 METRO (-180 kts only)	7000	Nantucket
V93 PXT V16 V33 V286 STEIN	5000	Newark
V214 DQO (Non turbojets only)	6000	Norfolk
V166 DQO (Non turbojets only)	5000	N. Philadelphia
V419 MXE (Non turbojets only)	5000	N. Philadelphia
V378 MXE (Non turbojets only)	5000	N. Philadelphia
V214 DQO (Turbojets only except ILG/N92)	9000	N. Philadelphia
V93 PXT	6000	Patuxent River
V214 DQO (Non turbojets only)	7000	Philadelphia
V214 DQO (Turbojets only)	9000	Philadelphia
V268 ENO V16 JFK V229 HFD CLOWW (Single engine and /E, /F, /G only)	7000	Portland
V93 PXT V16	6000	Richmond
BAL BAL133 SBY332 SBY	5000	Salisbury
V268 ENO V16 JFK CCC (Single Engine)	7000	Suffolk
BAL V378 MXE V3 SBJ TEB (-180 kts only)	7000	Teterboro
DIRECT	4000	Washington
V93 LRP V39 V162 FJC STW SAX V39 BREZY	7000	Westchester Co
V93 LRP ETX FJC BWZ SAX V39 BREZY	7000	Westchester Co
V93 LVZ	7000	Wilkes Barre

**Bangor**

ENE LWM	10000	Bedford
(3) ENE PSM PSM221 STEVO LWM	10000	Boston
(4) ENE V167 SCUPP	10000	Boston
ENE V106 GDM V229 WITNY	10000	Bradley
CLOWW WITNY (/E, /F, /G only)	10000	Bradley
ENE V106 GDM V229 HFD	10000	Bridgeport
CLOWW WITNY HFD (/E, /F, /G only)	10000	Bridgeport
AUG V39 CON	10000	Concord
(3) AUG V39 GDM V229 HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury

Approach Control Area  
(Including Satellites)

	Route	Highest Altitude	Destination
	..... (3) CLOWW WITNY HFD V1 MAD V475 BDR	10000	Danbury
	..... BDR288 RYMES (/E, /F, /G only)		
	..... AUG V39 GDM V14 ORW GON	10000	Groton
	..... AUG V39 GDM V229 HFD	10000	Hartford
	..... CLOWW WITNY HFD (/E, /F, /G only)	10000	Hartford
	..... ENE V139 TONNI	10000	Hyannis
	..... ENE V106 GDM V14 ORW V16 CCC	10000	Islip
	..... ENE V106 GDM V14 ORW V16 DPK	10000	Kennedy
	..... ENE MHT	10000	Manchester
	..... ENE V139 TONNI	10000	Marthas Vineyard
	..... ENE V139 TONNI	10000	Nantucket
	..... (3) CLOWW WITNY HFD V3 CMK V623 SAX	10000	Newark & SATS
	..... (/E, /F, /G only)		
	..... (3) ENE V106 GDM V3 CMK V188 SAX	10000	Newark & SATS
	..... (1) CLOWW WITNY HFD V229 V188 CMK V623	10000	Newark & SATS
	..... SAX (/E, /F, /G only)		
	..... (1) ENE V106 GDM V229 SEALL V188 SAX	10000	Newark & SATS
	..... ENE LWM	10000	Norwood
	..... ENE V139 BURDY	10000	Providence
	..... ENE V139 TONNI	10000	Provincetown
	..... AUG V39 CON V93 STUBY V205 TRESA	10000	Stewart
	..... (3) CLOWW WITNY HFD V1 MAD V475 BDR	10000	White Plains
	..... BDR288 RYMES (/E, /F, /G only)		
	..... ENE V106 GDM V229 SPENO	10000	Worcester
Binghamton	..... V29 LVZ V613	8000	Allentown
	..... V252 GEE V14	8000	Buffalo
	..... V270	8000	Elmira
	..... V423	8000	Ithaca
	..... V29 LVZ V613 FJC ARD	8000	N. Philadelphia
	..... V29 PTW	8000	Philadelphia
	..... V423 ITH	8000	Rochester
	..... V29	8000	Syracuse
	..... V29 LVZ V226 MUGZY	8000	Teterboro
	..... V29	8000	Wilkes-Barre
Boston	..... GLYDE V270 CTR	10000	Albany
	..... (1) V419 V14 ORW V16 JFK V229	10000	Atlantic City
	..... (1) V268 HTO CCC V16 V229	10000	Atlantic City
	..... V419 V14 ORW V308 BRIGS	10000	Atlantic City
	..... V268 BRIGS	10000	Atlantic City
	..... PSM ENE	10000	Augusta
	..... (1) V419 V14 ORW V16 V44 V268	10000	Baltimore
	..... (1) V268 HTO CCC V16 V44 V268	10000	Baltimore
	..... V419 V14 ORW HTO V268	10000	Baltimore
	..... V268	10000	Baltimore
	..... PSM ENE BGR	10000	Bangor
	..... PSM ENE	10000	Bar Harbor
	..... BOSOX V419 WITNY	10000	Bradley
	..... BOSOX V1 HFD	10000	Bridgeport
	..... V268 SEY V34 CREAM	10000	Bridgeport
	..... V270 CTR V146 V14	10000	Buffalo
	..... MHT V141	10000	Burlington
	..... MHT CON	10000	Concord
	..... (3) BOSOX V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
	..... (5) GLYDE BAF IGN V157 HAARP	10000	Danbury
	..... (1) V419 V14 ORW V16 ENO	10000	Dover AFB
	..... (1) V268 HTO CCC V16 ENO	10000	Dover AFB
	..... V419 V14 ORW HTO V268 ENO	10000	Dover AFB
	..... V268 ENO	10000	Dover AFB
	..... GLYDE V270	10000	Elmira
	..... GLYDE V270	10000	Erie
	..... PVD	10000	Groton
	..... BOSOX V1 HFD	10000	Hartford
	..... DRUNK V141 GAILS	10000	Hyannis
	..... V419 V14 ORW V16 CCC	10000	Islip
	..... V268 HTO V46 CCC	10000	Islip
	..... MHT	10000	Keene
	..... V419 V14 ORW V16 DPK	10000	Kennedy
	..... V268 HTO V46 DPK	10000	Kennedy
	..... (3) BOSOX V1 MAD V475	10000	LaGuardia



**Approach Control Area  
(Including Satellites)**

	Route	Highest Altitude	Destination
	..... MHT	10000	Lebanon
	..... MHT	10000	Manchester
	..... MVY359035 MVY	10000	Martha's Vineyard
NO SATS	..... (1) V419 V14 ORW V16 CYN	10000	McGuire AFB
SO SATS	..... (1) V268 HTO CCC V16 CYN	10000	McGuire AFB
NO SATS	..... V419 V14 ORW V308 DRIFT V312 CYN	10000	McGuire AFB
SO SATS	..... V268 DRIFT V312 CYN	10000	McGuire AFB
	..... DRUNK V141	10000	Nantucket
	..... (1) BOSOX V1 HFD V229 SEALL V188 CMK V623 SAX	10000	Newark & SATS
	..... (3) BOSOX V1 HFD V3 CMK V623 SAX	10000	Newark & SATS
NO SATS	..... BOSOX V1 HFD	10000	New Haven
SO SATS	..... V268 SEY V34 CREAM	10000	New Haven
NO SATS	..... (1) V419 V14 ORW V16 DIXIE V276 ARD	10000	N.E. Philadelphia
SO SATS	..... (1) V268 HTO CCC V16 DIXIE V276 ARD	10000	N.E. Philadelphia
NO SATS	..... V419 V14 ORW V308 MANTA V276 ARD	10000	N.E. Philadelphia
SO SATS	..... V268 MANTA V276 ARD	10000	N.E. Philadelphia
NO SATS	..... (1) V419 V14 ORW V16 VCN OOD	10000	Philadelphia
SO SATS	..... (1) V268 HTO CCC V16 VCN OOD	10000	Philadelphia
NO SATS	..... V419 V14 ORW V308 BRIGS ACY V184 OOD	10000	Philadelphia
SO SATS	..... V268 BRIGS ACY V184 OOD	10000	Philadelphia
	..... PSM ENE	10000	Portland
	..... Direct	10000	Portsmouth
	..... Direct	10000	Providence
	..... Direct	10000	Provincetown
NO SATS	..... (1) V419 V14 ORW V16	10000	Richmond
SO SATS	..... (1) V268 HTO CCC V16	10000	Richmond
NO SATS	..... V419 V14 ORW HTO V268 ENO V16	10000	Richmond
SO SATS	..... V268 ENO V16	10000	Richmond
	..... BOSOX V419 BDL V205 TRESA	10000	Stewart
	..... MHT V490 UCA	10000	Syracuse
NO SATS	..... (1) V419 V14 ORW V16 DIXIE V276 RBV	10000	Trenton
SO SATS	..... (1) V268 HTO CCC V16 DIXIE V276 RBV	10000	Trenton
NO SATS	..... V419 V14 ORW V308 MANTA V276 RBV	10000	Trenton
SO SATS	..... V268 MANTA V276 RBV	10000	Trenton
	..... (3) BOSOX V1 MAD V475 BDR BDR288 RYMES	10000	White Plains
NO SATS	..... V419 V14 ORW V16 CREAM HTO	10000	Westhampton Bch
NO SATS	..... V268 HTO	10000	Westhampton Bch
	..... Direct	10000	Worcester
Boston ARTCC/Keene	..... GDM V431 LOBBY	10000	Bedford
	..... V431 REVER	10000	Boston
	..... Direct	10000	Bradley
	..... GDM V229 HFD	10000	Bridgeport
	..... (3) GDM V229 HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
	..... GDM V14 ORW GON	10000	Groton
	..... GDM V229 HFD	10000	Hartford
	..... GDM V151 GAILS	10000	Hyannis
	..... GDM V151 PVD V405 MVY	10000	Marthas Vineyard
	..... GDM V151 PVD PVD167 NEWBE DEEPO	10000	Nantucket
	..... GDM V431 LOBBY	10000	Norwood
	..... GDM V151 PVD	10000	Providence
	..... GDM V151 GAILS	10000	Provincetown
	..... CTR V93 STUBY V205 TRESA	10000	Stewart
	..... GDM V229 SPENO	10000	Worcester
Boston ARTCC/Lebanon	..... LEB LEB167 BASUU (BED/FIT/6B6) or V141 CON LWM (BVY/LWM/2B2)	10000	Bedford
	..... V141 CON CON135 TOMIE LWM	10000	Boston
	..... EEN	10000	Bradley
	..... V151 GDM V229 HFD	10000	Bridgeport
	..... V151 GDM V229 HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
	..... V151 GDM V14 ORW GON	10000	Groton
	..... V151 GDM V229 HFD	10000	Hartford
	..... V141 CON LWM BOS GAILS	10000	Hyannis
	..... V141 CON LWM BOS	10000	Marthas Vineyard
	..... V141 CON LWM BOS LFV	10000	Nantucket
	..... LEB LEB167 BASUU	10000	Norwood
	..... V151 PVD	10000	Providence

Approach Control Area  
(Including Satellites)

	Route	Highest Altitude	Destination
	..... V141 CON LWM BOS	10000	Provincetown
	..... V151 GDM V229 SPENO	10000	Worcester
Bradley	..... DIRECT	10000	Albany
	..... PWL V106 WEETS HUO V162	5000	Allentown/Harrisburg
	..... (1) GON CCC V16 JFK V229	10000	Atlantic City
	..... GON HTO V308 BRIGS	10000	Atlantic City
	..... EEN V93 CON	10000	Augusta
	..... (1) GON CCC V16 ENO V268	10000	Baltimore
	..... GON HTO V268	10000	Baltimore
	..... EEN V93 CON V39 AUG	10000	Bangor
	..... EEN V93 ENE	10000	Bar Harbor
	..... GRAYM HFD053 DREEM	10000	Bedford & NO SATS
	..... PUT PUT 105 WOONS	10000	Boston & SO SATS
	..... HFD	10000	Bridgeport
	..... ALB V14	10000	Buffalo
	..... EEN V93 CON	10000	Concord
	..... (3) HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
	..... (5) V405 VEERS IGN V157 HAARP	10000	Danbury
	..... (1) GON CCC V16 ENO	10000	Dover AFB
	..... GON HTO V268 ENO	10000	Dover AFB
	..... CTR V270	10000	Elmira
	..... CTR V270	10000	Erie
	..... HFD GON	10000	Groton
	..... PVD V151 GAILS	10000	Hyannis
	..... GON CCC	10000	Islip
	..... DIRECT	10000	Keene
	..... GON CCC V16 DPK	10000	Kennedy
	..... (3) HFD V1 MAD V475	10000	LaGuardia
	..... EEN V151	10000	Lebanon
	..... EEN	10000	Manchester
	..... PVD V405 MVY	10000	Marthas Vineyard
	..... (1) GON CCC V16 CYN	10000	McGuire AFB
	..... GON HTO V308 DRIFT V312 CYN	10000	McGuire AFB
	..... PVD PVD167 NEWBE DEEPO	10000	Nantucket
	..... (1) HFD V229 SEALL V188 CMK V623 SAX	10000	Newark & SATS
	..... (3) HFD V3 CMK V623 SAX	10000	Newark & SATS
	..... (1) GON CCC V16 DIXIE V276 ARD	10000	N.E. Philadelphia
	..... GON HTO V308 MANTA V276 ARD	10000	N.E. Philadelphia
	..... PUT PUT105 WOONS	10000	Norwood
	..... (1) GON CCC V16 VCN OOD	10000	Philadelphia
	..... GON HTO V308 BRIGS ACY V184 OOD	10000	Philadelphia
	..... EEN	10000	Portland
	..... (3) VAPER V39 GDM V106 RAYMY	10000	Portsmouth
	..... (5) EEN	10000	Portsmouth
	..... DIRECT	10000	Providence
	..... PVD V151 GAILS	10000	Provincetown
	..... (1) GON CCC V16	10000	Richmond
	..... GON HTO V268 ENO V16	10000	Richmond
	..... ALB	10000	Rochester
	..... VEERS V205 TRESA	10000	Stewart
	..... ALB	10000	Syracuse
	..... (1) GON CCC V16 DIXIE V276 RBV	10000	Trenton
	..... GON HTO V308 MANTA V276 RBV	10000	Trenton
	..... GON HTO	10000	Westhampton Beach
	..... (3) HFD V1 MAD V475 BDR BDR288 RYMES	10000	White Plains
	..... PWL V106 LHY	5000	Wilkes-Barre
Bradley/Hartford	..... DIRECT	10000	Albany
	..... PWL V106 WEETS HUO V162	5000	Allentown/Harrisburg
	..... (1) GON CCC V16 JFK V229	10000	Atlantic City
	..... GON HTO V308 BRIGS	10000	Atlantic City
	..... HFD V229 GDM V39 CON	10000	Augusta
	..... HFD CLOWW (/E, /F, /G only)	10000	Augusta
	..... (1) GON CCC V16 ENO V268	10000	Baltimore
	..... GON HTO V268	10000	Baltimore
	..... HFD V229 GDM V39 AUG	10000	Bangor
	..... HFD CLOWW (/E, /F, /G only)	10000	Bangor
	..... HFD V229 GDM V106 ENE	10000	Bar Harbor
	..... HFD CLOWW (/E, /F, /G only)	10000	Bar Harbor
	..... HFD HFD053 DREEM	10000	Bedford & NO SATS

Approach Control Area  
(Including Satellites)

Route	Highest Altitude	Destination
..... HFD V3 WOONS	10000	Boston & SO SATS
..... DIRECT	10000	Bridgeport
..... ALB V14	10000	Buffalo
..... HFD V229 GDM V39 CON	10000	Concord
..... HFD CLOWW (/E, /F, /G only)	10000	Concord
..... (3) HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
..... (5) BDL V405 VEERS IGN V157 HAARP	10000	Danbury
..... (1) GON CCC V16 ENO	10000	Dover AFB
..... GON HTO V268 ENO	10000	Dover AFB
..... CTR V270	10000	Elmira
..... CTR V270	10000	Erie
..... HFD GON	10000	Groton
..... HFD V167 PVD V151 GAILS	10000	Hyannis
..... GON CCC	10000	Islip
..... HFD V229 GDM	10000	Keene
..... GON CCC V16 DPK	10000	Kennedy
..... (3) HFD V1 MAD V475	10000	LaGuardia
..... HFD V229 GDM V151	10000	Lebanon
..... HFD V229 GDM V106 MHT	10000	Manchester
..... HFD CLOWW (/E, /F, /G only)	10000	Manchester
..... GON V374 MYY	10000	Marthas Vineyard
..... (1) GON CCC V16 CYN	10000	McGuire AFB
..... GON HTO V308 DRIFT V312 CYN	10000	McGuire AFB
..... GON V58 NEWBE DEEPO	10000	Nantucket
..... (1) HFD V229 SEALL V188 CMK V623 SAX	10000	Newark & SATS
..... (3) HFD V3 CMK V623 SAX	10000	Newark & SATS
..... (1) GON CCC V16 DIXIE V276 ARD	10000	N.E. Philadelphia
..... GON HTO V308 MANTA V276 ARD	10000	N.E. Philadelphia
..... PUT PUT105 WOONS	10000	Norwood
..... (1) GON CCC V16 VCN OOD	10000	Philadelphia
..... GON HTO V308 BRIGS ACY V184 OOD	10000	Philadelphia
..... HFD V229 GDM V106 ENE	10000	Portland
..... HFD CLOWW (/E, /F, /G only)	10000	Portland
..... HFD V229 GDM V106 RAYMY	10000	Portsmouth
..... HFD CLOWW (/E, /F, /G only)	10000	Portsmouth
..... HFD V167 PVD	10000	Providence
..... PVD V151 GAILS	10000	Provincetown
..... (1) GON CCC V16	10000	Richmond
..... GON HTO V268 ENO V16	10000	Richmond
..... ALB	10000	Rochester
..... VEERS V205 TRESA	10000	Stewart
..... ALB	10000	Syracuse
..... (1) GON CCC V16 DIXIE V276 RBV	10000	Trenton
..... GON HTO V308 MANTA V276 RBV	10000	Trenton
..... GON HTO	10000	Westhampton Beach
..... (3) HFD V1 MAD V475 BDR BDR288 RYMES	10000	White Plains
..... PWL V106 LHY	5000	Wilkes-Barre
..... CTR	10000	Albany
..... PWL V106 WEETS HUO V162	5000	Allentown/Harrisburg
..... (1) ORW V16 JFK V229	10000	Atlantic City
..... ORW HTO V308 BRIGS	10000	Atlantic City
..... GDM V93 CON	10000	Augusta
..... (1) ORW V16 ENO V268	10000	Baltimore
..... ORW HTO V268	10000	Baltimore
..... GDM V39 AUG	10000	Bangor
..... GDM V106 ENE	10000	Bar Harbor
..... DREEM	10000	Bedford & NO SATS
..... PUT PUT105 WOONS	10000	Boston & SO SATS
..... HFD	10000	Bridgeport
..... CTR ALB V14	10000	Buffalo
..... GDM	10000	Concord
..... (3) HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
..... (5) BAF IGN V157 HAARP	10000	Danbury
..... (1) ORW V16 ENO	10000	Dover AFB
..... ORW HTO V268 ENO	10000	Dover AFB
..... CTR V270	10000	Elmira
..... CTR V270	10000	Erie
..... ORW GON	10000	Groton
..... PUT V151 GAILS	10000	Hyannis
..... ORW V16 CCC	10000	Islip

Bradley/Worcester

Approach Control Area  
(Including Satellites)

Route	Highest Altitude	Destination
..... GDM	10000	Keene
..... ORW V16 DPK	10000	Kennedy
..... (3) HFD V1 MAD V475	10000	LaGuardia
..... GDM V151	10000	Lebanon
..... GDM V106 MHT	10000	Manchester
..... PUT V151 PVD V405 MVY	10000	Marthas Vineyard
..... (1) ORW V16 CYN	10000	McGuire AFB
..... ORW V308 DRIFT V312 CYN	10000	McGuire AFB
..... PUT V151 PVD PVD167 NEWBE DEEPO	10000	Nantucket
..... (1) HFD V229 SEALL V188 CMK V623 SAX	10000	Newark & SATS
..... (3) HFD V3 CMK V623 SAX	10000	Newark & SATS
..... (1) ORW V16 DIXIE V276 ARD	10000	N.E. Philadelphia
..... ORW V308 MANTA V276 ARD	10000	N.E. Philadelphia
..... PUT PUT105 WOONS	10000	Norwood
..... (1) ORW V16 VCN OOD	10000	Philadelphia
..... ORW V308 BRIGS ACY V184 OOD	10000	Philadelphia
..... GDM V106 ENE	10000	Portland
..... GDM V106 RAYMY	10000	Portsmouth
..... PUT PVD	10000	Providence
..... PUT V151 GAILS	10000	Provincetown
..... (1) ORW V16	10000	Richmond
..... ORW HTO V268 ENO V16	10000	Richmond
..... CTR ALB	10000	Rochester
..... VEERS V205 TRESA	10000	Stewart
..... CTR ALB	10000	Syracuse
..... (1) ORW V16 DIXIE V276 RBV	10000	Trenton
..... ORW V308 MANTA V276 RBV	10000	Trenton
..... ORW HTO	10000	Westhampton Beach
..... (3) HFD V1 MAD V475 BDR BDR288 RYMES	10000	White Plains
..... PWL V106 LHY	5000	Wilkes-Barre

## Bridgeport (See New York/Bridgeport)

Buffalo	..... V2	10000	Detroit
	..... V14	10000	Erie
	..... V115	10000	Jamestown
	..... V2	10000	Rochester
Burlington	..... CAM	10000	Albany
	..... V141 LEB LEB167 BASUU	10000	Bedford
	..... V141 CON LWM	10000	Beverly
	..... (3) V141 CON TOMIE LWM	10000	Boston
	..... EEN	10000	Bradley
	..... ALB V44 DENNA	10000	Bridgeport
	..... (3) ALB V123 HAARP	10000	Danbury
	..... (4) ALB V157 HAARP	10000	Danbury
	..... V229 GDM V14 ORW GON	10000	Groton
	..... V229 HFD	10000	Hartford
	..... V141 CON LWM BOS GAILS	10000	Hyannis
	..... V141 CON LWM BOS	10000	Marthas Vineyard
	..... V141 CON LWM BOS LFV	10000	Nantucket
	..... V229 SPENO	10000	Norwich
	..... V141 LEB LEB167 BASUU	10000	Norwood
	..... V229 GDM V151 PVD	10000	Providence
	..... V141 CON LWM BOS	10000	Provincetown
	..... ALB V123 TRESA	10000	Stewart
Cape/Hyannis	..... PVD V146	10000	Albany
	..... MVY MVY230 V34 SEY HTO V308 BRIGS	10000	Atlantic City
	..... (1) MINNK V374 GON CCC V16 JFK V229	10000	Atlantic City
	..... FREDO BOS PSM ENE	10000	Augusta
	..... MVY MVY230 V34 SEY HTO V268	10000	Baltimore
	..... (1) MINNK V374 GON CCC V16 ENO V268	10000	Baltimore
	..... FREDO BOS PSM ENE BGR	10000	Bangor
	..... FREDO BOS PSM ENE	10000	Bar Harbor
	..... FREDO	10000	Bedford
	..... FREDO	10000	Boston & Sats
	..... PVD V405 BDL	10000	Bradley
	..... (water) MVY MVY230 V34 SEY HTO HTO302	10000	Bridgeport
	..... KEYED		

Approach Control Area  
(Including Satellites)

Route	Highest Altitude	Destination
..... (land) MINNK V374 CREAM	10000	Bridgeport
..... PVD V146 ALB V14	10000	Buffalo
..... PVD V151 GDM V229	10000	Burlington
..... FREDO BOS MHT CON	10000	Concord
..... (3) PVD HFD V1 MAD V475 BDR BDR288	10000	Danbury
..... RYMES		
..... (5) PVD V146 BAF V157 HAARP	10000	Danbury
..... MVY MVY230 V34 SEY HTO V268 ENO	10000	Dover AFB
..... (1) MINNK V374 GON CCC V16 ENO	10000	Dover AFB
..... PVD V146 CTR V270	10000	Elmira
..... PVD V146 CTR V270	10000	Erie
..... (5) MVY MVY230 V34 SEY V268 HTO V46 DPK	10000	Farmingdale
..... (1) MINNK V374 GON CCC V16 DPK	10000	Farmingdale
..... Direct	10000	Groton
..... PVD HFD	10000	Hartford
..... (5) MVY MVY230 V34 SEY V268 HTO V46 CCC	10000	Islip
..... (1) MINNK V374 GON CCC	10000	Islip
..... PVD V151 GDM	10000	Keene
..... (5) MVY MVY230 V34 SEY HTO V46 DPK	10000	Kennedy
..... (1) MINNK V374 GON CCC V16 DPK	10000	Kennedy
..... PVD V167 HFD VI MAD V475	10000	LaGuardia
..... PVD V151	10000	Lebanon
..... FREDO BOS	10000	Manchester
..... MVY MVY230 V34 SEY HTO V308 DRIFT V312	10000	McGuire AFB
..... CYN		
..... (1) MINNK V374 GON CCC V16 CYN	10000	McGuire AFB
..... (1) PVD V167 HFD V229 SEALL V188 CMK	10000	Newark & SATS
..... V623 SAX		
..... (3) PVD V167 HFD V3 CMK V623 SAX	10000	Newark & SATS
..... MVY MVY230 V34 SEY V268 HTO V46 CCC V16	10000	N.E. Philadelphia
..... DIXIE V276 ARD		
..... (1) MINNK V374 GON CCC V16 DIXIE V276 ARD	10000	N.E. Philadelphia
..... FREDO	10000	Norwood
..... MVY MVY230 V34 SEY HTO V308 BRIGS ACY	10000	Philadelphia
..... V184 OOD		
..... (1) MINNK V374 GON CCC V16 VCN OOD	10000	Philadelphia
..... FREDO BOS PSM ENE	10000	Portland
..... FREDO BOS	10000	Portsmouth
..... Direct	10000	Providence
..... MVY MVY230 V34 SEY HTO V308 CHOPS V16	10000	Richmond
..... (1) MINNK V374 GON CCC V16	10000	Richmond
..... PVD V146 ALB	10000	Rochester
..... PVD V405 BDL V205 TRESA	10000	Stewart
..... PVD V146 ALB	10000	Syracuse
..... MVY MVY230 V34 SEY HTO V308 MANTA V276	10000	Trenton
..... RBV		
..... (1) MINNK V374 GON CCC V16 DIXIE V276 ARD	10000	Trenton
..... (5) MVY MVY230 V34 SEY V268 HTO V46 CCC	10000	Westhampton Beach
..... (1) MINNK V374 GON CCC	10000	Westhampton Beach
..... PVD V167 HFD V1 MAD V475 BDR BDR288	10000	White Plains
..... RYMES		
..... PVD PUT	10000	Worcester
..... PVD V146	10000	Albany
..... MVY MVY230 V34 SEY HTO V308 BRIGS	10000	Atlantic City
..... (1) V374 GON CCC V16 JFK V229	10000	Atlantic City
..... MVY MVY230 V34 SEY HTO V268	10000	Baltimore
..... (1) V374 GON CCC V16 ENO V268	10000	Baltimore
..... FREDO BOS PSM ENE	10000	Bar Harbor
..... FREDO	10000	Boston & SATS
..... PVD V405 BDL	10000	Bradley
..... MVY MVY230 V34 SEY HTO HTO302 KEYED	10000	Bridgeport
..... (water)		
..... (land) V374 CREAM	10000	Bridgeport
..... PVD V146 ALB V14	10000	Buffalo
..... PVD V151 GDM V229	10000	Burlington
..... FREDO BOS MHT CON	10000	Concord
..... (3) PVD HFD V1 MAD V475 BDR BDR288	10000	Danbury
..... RYMES		
..... (5) MVY V146 BAF IGN V157 HAARP	10000	Danbury

Cape/Martha's  
Vineyard

Approach Control Area  
(Including Satellites)

Route	Highest Altitude	Destination
..... (1) MVY MVY230 V34 SEY HTO V268 ENO	10000	Dover AFB
..... (1) V374 GON CCC V16 ENO	10000	Dover AFB
..... PVD V146 CTR V270	10000	Elmira
..... PVD V146 CTR V270	10000	Erie
..... (5) MVY MVY230 V34 SEY V268 HTO V46 DPK	10000	Farmingdale
..... (1) V374 GON CCC V16 DPK	10000	Farmingdale
..... Direct	10000	Groton
..... MVY MVY230 V58 HFD	10000	Hartford
..... (5) MVY MVY230 V34 SEY V268 HTO V46 CCC	10000	Islip
..... (1) V374 GON CCC	10000	Islip
..... PVD V151 GDM	10000	Keene
..... (5) MVY MVY230 V34 SEY V268 HTO V46 DPK	10000	Kennedy
..... (1) V374 GON CCC V16 DPK	10000	Kennedy
..... PVD V167 HFD V1 MAD V475	10000	LaGuardia
..... PVD V151	10000	Lebanon
..... FREDO BOS MHT	10000	Manchester
..... MVY MVY230 V34 SEY HTO V308 DRIFT V312 CYN	10000	McGuire AFB
..... (1) V374 GON CCC V16 CYN	10000	McGuire AFB
..... PVD V167 HFD V229 V188 CMK V623 SAX	10000	Newark & SATS
..... (3) PVD V167 HFD V3 CMK V623 SAX	10000	Newark & SATS
..... MVY MVY230 V34 SEY HTO V308 MANTA V276	10000	N.E. Philadelphia
..... ARD		
..... (1) V374 GON CCC V16 DIXIE V276 ARD	10000	N.E. Philadelphia
..... FREDO	10000	Norwood
..... MVY MVY230 V34 SEY HTO V308 BRIGS ACY V184 OOD	10000	Philadelphia
..... (1) V374 GON CCC V16 VCN OOD	10000	Philadelphia
..... FREDO BOS PSM ENE	10000	Portland
..... FREDO BOS PSM	10000	Portsmouth
..... Direct	10000	Providence
..... MVY MVY230 V34 SEY HTO V308 CHOPS V16	10000	Richmond
..... (1) V374 GON CCC V16	10000	Richmond
..... PVD V146 ALB	10000	Rochester
..... PVD V405 BDL V205 STUBY	10000	Stewart
..... PVD V146 ALB	10000	Syracuse
..... MVY MVY230 V34 SEY HTO V308 MANTA V267 RBV	10000	Trenton
..... (1) V374 GON CCC V16 DIXIE V276 ARD	10000	Trenton
..... MVY MVY230 V34 SEY V268 HTO V46 CCC	10000	Westhampton Beach
..... (1) V374 GON CCC	10000	Westhampton Beach
..... PVD V167 HFD V1 MAD V475 BDR BDR288	10000	White Plains
..... RYMES		
..... PVD PUT	10000	Worcester
Cape/Nantucket		
..... ACK 146	10000	Albany
..... ACK V34 SEY HTO V308 BRIGGS	10000	Atlantic City
..... (1) ACK V146 MVY V374 GON CCC V16 JFK V229	10000	Atlantic City
..... ACK FREDO BOS PSM ENE	10000	Augusta
..... ACK V34 SEY HTO V268	10000	Baltimore
..... (1) ACK V146 MVY V374 GON CCC V16 ENO V268	10000	Baltimore
..... ACK FREDO BOS PSM ENE BGR	10000	Bangor
..... ACK FREDO BOS PSM ENE	10000	Bar Harbor
..... ACK FREDO	10000	Bedford
..... ACK FREDO	10000	Boston & SATS
..... ACK V146 PVD V405 BDL	10000	Bradley
..... ACK V34 SEY HTO HTO302 KEYED (water)	10000	Bridgeport
..... (land) ACK V146 MVY V374 CREAM	10000	Bridgeport
..... ACK V146 ALB V14	10000	Buffalo
..... ACK V146 PVD V151 GDM V229	10000	Burlington
..... ACK FREDO BOS MHT CON	10000	Concord
..... (3) ACK V146 PVD HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
..... (5) ACK V146 BAF IGN V157 HAARP	10000	Danbury
..... ACK V34 SEY HTO V268 ENO	10000	Dover AFB
..... (1) ACK V146 MVY V374 GON CCC V16 ENO	10000	Dover AFB
..... ACK V146 CTR V270	10000	Elmira
..... ACK V146 CTR V270	10000	Erie

Approach Control Area  
(Including Satellites)

	Route	Highest Altitude	Destination
	..... (5) ACK V34 SEY V268 HTO V46 DPK	10000	Farmingdale
	..... (1) ACK V146 MVY V374 GON CCC V16 DPK	10000	Farmingdale
	..... ACK	10000	Groton
	..... ACK V58 HFD	10000	Hartford
	..... (5) ACK V34 SEY V268 HTO V46 CCC	10000	Islip
	..... (1) ACK V146 MVY V374 GON CCC	10000	Islip
	..... ACK V146 PVD V151 GDM	10000	Keene
	..... (5) ACK V34 SEY V268 HTO V46 DPK	10000	Kennedy
	..... (1) ACK V146 MVY V374 GON CCC V16 DPK	10000	Kennedy
	..... ACK V146 PVD V167 HFD V1 MAD V475	10000	La Guardia
	..... ACK V146 PVD V151	10000	Lebanon
	..... ACK FREDO BOS MHT	10000	Manchester
	..... ACK V34 SEY HTO V308 DRIFT V312 CYN	10000	McGuire AFB
	..... (1) ACK V146 MVY V374 GON CCC V16 CYN	10000	McGuire AFB
	..... (1) ACK V146 PVD V167 HFD V229 V188 CMK	10000	Newark & SATS
	..... V623 SAX		
	..... (3) ACK V146 PVD V167 HFD V3 CMK V623 SAX	10000	Newark & SATS
	..... ACK V34 SEY HTO V308 MANTA V276 ARD	10000	N.E. Philadelphia
	..... (1) ACK V146 MVY V374 GON CCC V16 DIXIE	10000	N.E. Philadelphia
	..... V276 ARD		
	..... ACK FREDO	10000	Norwood
	..... ACK V34 SEY HTO V308 BRIGS ACY V184 OOD	10000	Philadelphia
	..... (1) ACK V146 MVY V374 GON CCC V16 VCN	10000	Philadelphia
	..... OOD		
	..... ACK FREDO BOS PSM ENE	10000	Portland
	..... ACK FREDO BOS PSM	10000	Portsmouth
	..... ACK V146 PVD	10000	Providence
	..... ACK V34 SEY HTO V308 CHOPS V16	10000	Richmond
	..... (1) ACK V146 MVY V374 GON CCC V16	10000	Richmond
	..... ACK V146 PVD V405 BDL V205 TRESA	10000	Stewart
	..... ACK V146 ALB	10000	Syracuse
	..... ACK V34 SEY HTO V308 MANTA V276 RBV	10000	Trenton
	..... (1) ACK V146 MVY V374 GON CCC V16 DIXIE	10000	Trenton
	..... V276 ARD		
	..... (5) ACK V34 SEY V268 HTO	10000	Westhampton Beach
	..... (1) ACK V146 MVY V374 GON CCC	10000	Westhampton Beach
	..... ACK V146 PVD V167 HFD V1 MAD V475 BDR	10000	White Plains
	..... BDR288 RYMES		
	..... ACK V146 PUT	10000	Worcester
Charleston	..... V35	9000	Clarksburg
	..... V4	9000	Elkins
	..... HVQ HVQ268 KIRRK	10000	Huntington
Clarksburg	..... V35	10000	Charleston
	..... V37 EKN V4	10000	Charleston
	..... V35	8000	Morgantown
	..... V37 (OTFC only)	8000	Pittsburgh
Dover AFB	..... ENO V268 LEEAH	7000	Atlantic City
	..... ENO V268 SWANN	6000	Baltimore
	..... V16 JFK V229 BDR (Single Engine only)	7000	Bridgeport
	..... ENO V16 HEDGE	3000	Easton
	..... V16 JFK V229 (Single Engine only)	7000	Hartford
	..... ENO V16 CYN	7000	McGuire AFB
	..... ENO V29 SBY V1	6000	Norfolk
	..... ENO V16	6000	Patuxent River
	..... ENO V29 PXT063 PXT	4000	Patuxent River
	..... ENO V29 DQO	5000	Philadelphia
	..... ENO V29	6000	Salisbury
	..... ENO V16 V308 OTT	6000	Washington
	..... ENO V29 DQO	5000	Wilmington
Dulles	..... DIRECT	4000	Baltimore
	..... MRB V214 WOOLY EMI V419 MXE ARD V214	7000	Newark
	..... METRO (–180 kts)		
	..... MRB V214 WOOLY EMI V419 MXE V3 SBJ TEB	7000	Teterboro
	..... METRO (–180 kts only)		
	..... DIRECT	3000	Washington

Approach Control Area (Including Satellites)	Route	Highest Altitude	Destination
Elmira	..... V428 V14	8000	Albany
	..... V72	8000	Binghamton
	..... V147	8000	Rochester
	..... V31	8000	Rochester
	..... V35	8000	Syracuse
	..... V36 V29	8000	Wilkes-Barre
	..... V147	8000	Wilkes-Barre
Erie	..... V43	9000	Buffalo
	..... V14	9000	Buffalo
	..... V2	9000	Buffalo
	..... V90 DKK	9000	Buffalo
	..... V464 DKK	9000	Buffalo
	..... JHW V115	9000	Buffalo
	..... JHW V265 DKK	9000	Buffalo
	..... V522 V188 JFN (East-bound)	8000	Cleveland
	..... V522 (East-bound)	8000	Cleveland
	..... JFN V14 MENTO (West-bound)	8000	Cleveland
	..... V37 (Overflight traffic only)	8000	Pittsburgh
Griffiss	..... V43	8000	Youngstown
	..... UCA V490 GALWA	10,000	Albany
	..... UCA V2	10,000	Albany
	..... GGT V14	10,000	Albany
	..... UCA V428 V29	8000	Binghamton
	..... UCA V428	8000	Elmira
	..... UCA V496	10,000	Glens Falls
	..... UCA V2	10,000	Syracuse
	..... UCA V428 V153	10,000	Syracuse
	..... V14 V153	10,000	Syracuse
Harrisburg	..... HAR V162 ETX	7000	Allentown
	..... LRP V39 ETX	7000	Allentown
	..... HAR V469 OOD V184	5000	Atlantic City
	..... LRP LRP144 PADRE DQO OOD V184	5000	Atlantic City
	..... LRP V499	6000	Baltimore
	..... HAR V31	8000	Baltimore
	..... LRP V499	7000	Binghamton
	..... LRP V39 ROBERT AML	8000	Dulles
	..... HAR V162 V39 ROBERT AML	8000	Dulles
	..... LRP V39 V162 FJC V6 V232 COL (Props only)	7000	Kennedy
	..... HAR V162 FJC V6 V232 COL (Props only)	7000	Kennedy
	..... HAR V162 FJC V6 V232 TYKES V123 NANC1	7000	LaGuardia
	..... (Props only)		
	..... LRP V39 V162 FJC V6 V232 TYKES V123	7000	LaGuardia
	..... NANC1 (Props only)		
	..... HAR V162 FJC BWZ (Props only)	7000	Newark
	..... LRP V39 V162 FJC BWZ (Jets only)	7000	Newark
	..... LRP V210 BUNTS	5000	North Philadelphia
	..... HAR V210 BUNTS	5000	Philadelphia
	..... LRP LRP082 HUMEL (RDG ILS)	3000	Reading
	..... HAR V12 BOYER	5000	Reading
	..... HAR V162 FJC STW	7000	Teterboro
	..... LRP V39 V162 FJC STW	7000	Teterboro
	..... HAR V265 KRANT	8000	Washington
	..... LRP V93 BAL	8000	Washington
	..... HAR V162 FJC STW SAX V39 BREZY	7000	Westchester Co.
	..... LRP V39 V162 FJC STW SAX V39 BREZY	7000	Westchester Co.
	..... LRP V93	7000	Wilkes-Barre
	..... HAR RAV HZL	7000	Wilkes-Barre
	..... LRP LRP144 PADRE DQO	5000	Wilmington
	..... V469	5000	Wilmington
Huntington	..... V128	9000	Charleston
	..... V4	9000	Charleston
	..... DIRECT	9000	Charleston
Manchester	..... EEN V93 V292 V408 LHY	10000	Allentown
	..... (1) GDM ORW V16 JFK V229	10000	Atlantic City
	..... GDM ORW V308 BRIGS	10000	Atlantic City



Approach Control Area  
(Including Satellites)

Route	Highest Altitude	Destination
..... (1) GDM ORW V16 ENO V268 SWANN	10000	Baltimore
..... GDM ORW HTO V268 SWANN	10000	Baltimore
..... EEN V93 V292 V408 LHY V93 BAL	10000	Baltimore
..... (1) GDM ORW V16 JFK COL	10000	Belmar
..... GDM ORW V308 MANTA V276 DIXIE	10000	Belmar
..... TOMIE LWM	10000	Boston
..... GDM V229 WITNY	10000	Bradley
..... CLOWW WITNY (/E, /F, /G only)	10000	Bradley
..... GDM V229 HFD	10000	Bridgeport
..... CLOWW WITNY HFD (/E, /F, /G only)	10000	Bridgeport
..... (3) GDM V229 HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
..... (3) CLOWW WITNY HFD V1 MAD V475 BDR BDR288 RYMES (/E, /F, /G only)	10000	Danbury
..... (1) GDM ORW V16 ENO	10000	Dover AFB
..... GDM ORW V308 HTO V268 ENO	10000	Dover AFB
..... EEN V93 CTR V270	10000	Elmira
..... GDM ORW V16 DPK	10000	Farmingdale
..... GDM V14 ORW GON	10000	Groton
..... EEN V93 V292 V408 LHY V93 V162 HAR	10000	Harrisburg
..... GDM V229 HFD	10000	Hartford
..... CLOWW WITNY HFD (/E, /F, /G only)	10000	Hartford
..... LWM BOS GAILS	10000	Hyannis
..... GDM ORW V16 CCC	10000	Islip
..... GDM ORW V16 DPK	10000	Kennedy
..... (3) GDM V229 HFD V1 MAD V475	10000	LaGuardia
..... EEN V93 V292 V408 LHY V93	10000	Lancaster
..... BOS	10000	Marthas Vineyard
..... BOS LFW	10000	Nantucket
..... (1) GDM V229 SEALL V188 CMK V623 SAX	10000	Newark & SATS
..... (3) GDM V3 CMK V623 SAX	10000	Newark & SATS
..... (1) CLOWW WITNY HFD V229 V188 CMK V623 SAX (/E, /F, /G only)	10000	Newark & SATS
..... (3) CLOWW WITNY HFD V3 CMK V623 SAX (/E, /F, /G only)	10000	Newark & SATS
..... GDM V229 HFD	10000	New Haven
..... CLOWW WITNY HFD (/E, /F, /G only)	10000	New Haven
..... (1) GDM ORW V16 JFK V1	10000	Norfolk
..... GDM ORW V308 HTO V139	10000	Norfolk
..... (1) GDM ORW V16 DIXIE V276 ARD	10000	N.E. Philadelphia
..... GDM ORW V308 MANTA V276 ARD	10000	N.E. Philadelphia
..... (1) GDM ORW V16 VCN OOD	10000	Philadelphia
..... GDM ORW V308 BRIGS ACY V184 OOD	10000	Philadelphia
..... EEN V93 V292 V408 LHY V58 GRACE	10000	Pittsburgh
..... EEN CTR	10000	Pittsfield
..... GDM V151 PVD	10000	Providence
..... BOS	10000	Provincetown
..... (1) GDM ORW V16	10000	Richmond
..... GDM ORW HTO V268 ENO V16	10000	Richmond
..... GDM V39 STUBY V205 TRESA	10000	Stewart
..... CAM V490 UCA	10000	Syracuse
..... (1) GDM ORW V16 DIXIE V276 RBV	10000	Trenton
..... GDM ORW V308 MANTA V276 RBV	10000	Trenton
..... GDM V229 HFD V3 SORRY	10000	Waterbury-Oxford
..... CLOWW WITNY HFD (/E, /F, /G only)	10000	Waterbury-Oxford
..... GDM ORW V308 HTO	10000	Westhampton Beach
..... (3) GDM V229 HFD V1 MAD V475 BDR BDR288 RYMES	10000	White Plains
..... (5) EEN V93 PWL IGN V157 HAARP	10000	White Plains
..... (3) CLOWW WITNY HFD V1 MAD V475 BDR BDR288 RYMES (/E, /F, /G only)	10000	White Plains
..... (1) GDM ORW V16 JFK V229 PANZE V44 SIE	10000	Wildwood
..... GDM ORW V308 SIE	10000	Wildwood
..... EEN V93 V292 V408 LHY	10000	Wilkes-Barre
..... GDM V229 SPENO	10000	Worcester
..... EEN V93 V292 V408 LHY	10000	Allentown
..... (1) MHT V106 GDM ORW V16 JFK V229	10000	Atlantic City
..... MHT V106 GDM ORW V308 BRIGS	10000	Atlantic City

Manchester/Pease

Approach Control Area  
(Including Satellites)

	Route	Highest Altitude	Destination
.....	(1) MHT V106 GDM ORW V16 ENO V268 SWANN	10000	Baltimore
.....	MHT V106 GDM ORW HTO V268 SWANN	10000	Baltimore
.....	EEN V93 V292 V408 LHY V93 BAL	10000	Baltimore
.....	LWM	10000	Bedford
.....	(1) MHT V106 GDM ORW V16 JFK COL	10000	Belmar
.....	MHT V106 GDM ORW V308 MANTA V276 DIXIE	10000	Belmar
.....	STEVO LWM	10000	Boston
.....	MHT V106 GDM V229 WITNY	10000	Bradley
.....	CLOWW WITNY (/E, /F, /G only)	10000	Bradley
.....	MHT V106 GDM V229 HFD	10000	Bridgeport
.....	CLOWW WITNY HFD (/E, /F, /G only)	10000	Bridgeport
.....	(3) MHT V106 GDM V229 HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
.....	(3) CLOWW WITNY HFD V1 MAD V475 BDR BDR288 RYMES (/E, /F, /G only)	10000	Danbury
.....	(1) MHT V106 GDM ORW V16 ENO	10000	Dover AFB
.....	MHT V106 GDM ORW V308 HTO V268 ENO	10000	Dover AFB
.....	EEN V93 CTR V270	10000	Elmira
.....	MHT V106 GDM ORW V16 DPK	10000	Farmingdale
.....	MHT V106 GDM V14 ORW GON	10000	Groton
.....	EEN V93 V292 V408 LHY V93 V162 HAR	10000	Harrisburg
.....	MHT V106 GDM V229 HFD	10000	Hartford
.....	CLOWW WITNY HFD (/E, /F, /G only)	10000	Hartford
.....	EXALT V139 TONNI	10000	Hyannis
.....	MHT V106 GDM ORW V16 CCC	10000	Islip
.....	MHT V106 GDM ORW V16 DPK	10000	Kennedy
.....	(3) MHT V106 GDM V229 HFD V1 MAD V475	10000	LaGuardia
.....	EEN V93 V292 V408 LHY V93	10000	Lancaster
.....	EXALT V139 TONNI	10000	Marthas Vineyard
.....	EXALT V139 TONNI	10000	Nantucket
.....	(1) MHT V106 GDM V229 SEALL V188 CMK V623 SAX	10000	Newark & SATS
.....	(3) MHT V106 GDM V3 CMK V623 SAX	10000	Newark & SATS
.....	(1) CLOWW WITNY HFD V229 V188 CMK V623 SAX (/E, /F, /G only)	10000	Newark & SATS
.....	(3) CLOWW WITNY HFD V3 CMK V623 SAX (/E, /F, /G only)	10000	Newark & SATS
.....	MHT V106 GDM V229 HFD	10000	New Haven
.....	CLOWW WITNY HFD (/E, /F, /G only)	10000	New Haven
.....	(1) MHT V106 GDM ORW V16 JFK V1	10000	Norfolk
.....	MHT V106 GDM ORW V308 HTO V139	10000	Norfolk
.....	LWM	10000	Norwood
.....	(1) MHT V106 GDM ORW V16 DIXIE V276 ARD	10000	N.E. Philadelphia
.....	MHT V106 GDM ORW V308 MANTA V276 ARD	10000	N.E. Philadelphia
.....	(1) MHT V106 GDM ORW V16 VCN OOD	10000	Philadelphia
.....	MHT V106 GDM ORW V308 BRIGS ACY V184 OOD	10000	Philadelphia
.....	EEN V93 V292 V408 LHY V58 GRACE	10000	Pittsburgh
.....	EEN CTR	10000	Pittsfield
.....	MHT V106 GDM V151 PVD	10000	Providence
.....	EXALT V139 TONNI	10000	Provincetown
.....	(1) MHT V106 GDM ORW V16	10000	Richmond
.....	MHT V106 GDM ORW HTO V268 ENO V16	10000	Richmond
.....	MHT V106 GDM V39 STUBY V205 TRESA	10000	Stewart
.....	MHT V490 UCA	10000	Syracuse
.....	(1) MHT V106 GDM ORW V16 DIXIE V276 RBV	10000	Trenton
.....	MHT V106 GDM ORW V308 MANTA V276 RBV	10000	Trenton
.....	MHT V106 GDM V229 HFD V3 SORRY	10000	Waterbury-Oxford
.....	CLOWW WITNY HFD (/E, /F, /G only)	10000	Waterbury-Oxford
.....	MHT V106 GDM ORW V308 HTO	10000	Westhampton Beach
.....	(3) MHT V106 GDM V229 HFD V1 MAD V475 BDR BDR288 RYMES	10000	White Plains
.....	(5) EEN V93 PWL IGN V157 HAARP	10000	White Plains
.....	(3) CLOWW WITNY HFD V1 MAD V475 BDR BDR288 RYMES (/E, /F, /G only)	10000	White Plains
.....	(1) MHT V106 GDM ORW V16 JFK V229 PANZE V44 SIE	10000	Wildwood
.....	MHT V106 GDM ORW V308 SIE	10000	Wildwood
.....	EEN V93 V292 V408 LHY	10000	Wilkes-Barre

Approach Control Area (Including Satellites)	Route	Highest Altitude	Destination
	..... MHT V106 GDM V229 SPENO	10000	Worcester
McGuire	..... V16 DIXIE V229	4000	Atlantic City
	..... COL COL192 DIXIE V229	4000	Atlantic City
	..... DIXIE V16 VCN (Overflights only)	6000	Atlantic City
	..... CYN V1 HOWIE (Overflights only)	6000	Atlantic City
	..... DIXIE V229 BDR BDR014 JUDDS (Preferred Single Engine Route)	7000	Bradley
	..... DIXIE V16 ENO	6000	Dover AFB
	..... DIXIE V229 (Single Engine only)	7000	Hartford
	..... DIXIE V229 HFD V167 PVD V151 GAILS (Single Engine Only)	7000	Hyannis
	..... RBV V276 DIXIE V16 JFK CCC (Single Engine only)	5000	Islip
	..... V184 ZIGGI JFK210 JFK CCC (No single engine; N/A btn 1400–2100 local)	5000	Islip
	..... GXU GXU055 RBV122 ZIGGI JFK210 JFK (No Single Engine)	5000	Kennedy
	..... RBV V276 DIXIE V16 JFK (Single Engine only)	5000	Kennedy
	..... RBV V276 ZIGGI JFK210 JFK (Twins only)	5000	Kennedy
	..... V184 ZIGGI JFK210 JFK (Twins only)	5000	Kennedy
	..... V229 JFK (Single Engine only)	5000	Kennedy
	..... RBV V123 Nanci (Props)	4000	LaGuardia
	..... RBV V123 Nanci (Jets only)	8000	LaGuardia
	..... DIXIE V229 BDR MAD V475 V188 GON V374 (Single Engine Only)	7000	Martha's Vineyard
	..... DIXIE V229 BDR MAD V475 V188 GON V58 NEWBE DEEPO (Single Engine Only)	7000	Nantucket
	..... V184 ZIGGI V276 RBV RBV005 OWBIE (Jets only)	6000	Newark
	..... DIXIE V276 RBV RBV005 OWBIE (Single engine only)	5000	Newark
	..... V229 DIXIE V276 RBV V249 METRO (Turbojet only)	4000	Newark (Sats)
	..... V184 ZIGGI V276 ARD	4000	N. Philadelphia
	..... V1 DIXIE V276 ARD	4000	N. Philadelphia
	..... RBV V276 ARD	4000	No. Philadelphia
	..... V1 CYN V312 OOD (Props only)	4000	Philadelphia
	..... V1 CYN V312 OOD (Jets only)	5000	Philadelphia
	..... DIXIE V229 JFK V229 BDR MAD V475 V188 GON (Single engine)	7000	Providence
	..... DIXIE V16 VCN ATR V1	6000	Salisbury
	..... V184 ZIGGI V276 RBV V249 SAX V39 BREZY	5000	Westchester Co.
New York/Bridgeport	..... SOARS V487 CANAN	10000	Albany
	..... HUO V162 FJC	5000	Allentown
	..... DPK V16 DIXIE V229 ACY (Single Engine only)	6000	Atlantic City
	..... MAD V1 HFD V229 GDM V39 CON	10000	Augusta
	..... MAD HFD CLOWW (/E, /F, /G only)	10000	Augusta
	..... DPK V16 ENO V268 SWANN (Single Engine only)	6000	Baltimore
	..... MAD V1 HFD V229 GDM V39 AUG	10000	Bangor
	..... MAD HFD CLOWW (/E, /F, /G only)	10000	Bangor
	..... MAD V1 HFD V229 GDM V106 ENE	10000	Bar Harbor
	..... MAD HFD CLOWW (/E, /F, /G only)	10000	Bar Harbor
	..... MAD V1 HFD HFD053 DREEM	10000	Bedford
	..... DPK JFK COL	6000	Belmar
	..... MAD V475 V188 GON	9000	Block Island
	..... MAD V1 HFD HFD053 DREEM	9000	Boston (North)
	..... (3) MAD V475 ORW V16 WOONS	10000	Boston
	..... BDR BDR014 JUDDS	10000	Bradley
	..... BDR	2000	Bridgeport SATS
	..... SOARS V487 CAM	10000	Burlington
	..... BDR JUDDS (/E, /F, /G only)	1000	Burlington
	..... HUO V162 HAR	5000	Capital City
	..... MAD V1 HFD V229 GDM V39 CON	10000	Concord
	..... MAD HFD CLOWW (/E, /F, /G only)	10000	Concord
	..... DPK V16 DIXIE V1 LEEAH V268 BAL BAL294 KROLL AML (Single Engine only)	6000	Dulles
	..... MAD MAD126 MONDI	7000	Groton

Approach Control Area  
(Including Satellites)

Route	Highest Altitude	Destination
..... HTO	3000	Hampton
..... MAD V1 HFD	5000	Hartford
..... MAD V475 PVD V151 GAILS	10000	Hyannis
..... CCC	4000	Islip
..... MAD V1 HFD V229 GDM	10000	Keene
..... BDR JUDDS WHATE (/E, /F, /G only)	10000	Keene
..... DPK	4000	Kennedy
..... R/V LGA075	4000	LaGuardia
..... HUO V162 ETX V39 LRP	5000	Lancaster
..... MAD V1 HFD V229 GDM V151	10000	Lebanon
..... BDR JUDDS WHATE (/E, /F, /G only)	10000	Lebanon
..... MAD V1 HFD V229 GDM V106 MHT	10000	Manchester
..... MAD HFD CLOWW (/E, /F, /G only)	10000	Manchester
..... DPK V16 DIXIE V16 CYN (Single Engine only)	6000	McGuire
..... MAD V475 V188 GON V374 MVY	9000	Martha's Vineyard
..... MAD	3000	Meriden Markham
..... DPK V16 VCN (Single Engine only)	6000	Millville
..... MAD V475 V188 GON V58 NEWBE DEEPO	10000	Nantucket
..... MAD V475 V188 GON V374 MINNK	9000	New Bedford
..... DIRECT	2000	New Haven
..... CMK V188 SAX	4000	Newark
..... DPK V16 DIXIE V1 (Single Engine only)	6000	Norfolk
..... (3) MAD V475 ORW V16 WOONS	10000	Norwood
..... DPK V16 DIXIE V276 ARD (Single Engine only)	6000	N. Philadelphia
..... DIXIE V16 CYN V312 OOD (Single Engine only)	6000	Philadelphia
..... MAD V1 HFD V229 GDM V106 ENE	10000	Portland
..... MAD HFD CLOWW (/E, /F, /G only)	10000	Portland
..... (3) MAD V1 HFD V229 GDM V106 RAYMY	10000	Portsmouth
..... MAD HFD CLOWW (/E, /F, /G only)	10000	Portsmouth
..... MAD V475 V188 GON	9000	Providence
..... MAD V475 PVD V151 GAILS	10000	Provincetown
..... MAD V475 V188 GON	9000	Quonset
..... SAX V249 SBJ V30 ETX V39 FLOAT (Props only)	7000	Reading
..... DPK V16 (Single Engine only)	6000	Richmond
..... DPK V16 DIXIE V1 (Single Engine only)	6000	Salisbury
..... HAAYS HUO V273 HNK	10000	Syracuse
..... DPK V16 DIXIE V1 V308 OTT (Single Engine only)	6000	Washington
..... BDR BDR 288 RYMES	4000	Westchester Co.
..... DPK V16 DIXIE V229 PANZE V44 SIE (Single Engine only)	6000	Wildwood
..... MAD V1 GRAYM	9000	Worcester
New York /Islip		
..... SAX V249 SBJ V30 ETX (Non jet/Non turboprop)	8000	Allentown
..... DPK V16 DIXIE V229 ACY (Single Engine only)	6000	Atlantic City
..... DPK V16 DIXIE V1 V308 OTT (Single Engine only)	6000	Andrews AFB
..... MAD HFD CLOWW (/E, /F, /G only)	10000	Augusta
..... DPK V16 ENO V268 SWANN (Single Engine only)	6000	Baltimore
..... MAD HFD CLOWW (/E, /F, /G only)	10000	Bangor
..... MAD HFD CLOWW (/E, /F, /G only)	10000	Bar Harbor
..... DPK JFK COL	6000	Belmar
..... HTO V268 SEY	7000	Block Island
..... HTO V308 ORW V16 WOONS	9000	Boston
..... MAD V1 HFD HFD053 DREEM	9000	Boston (North)
..... BDR BDR014 JUDDS	8000	Bradley
..... BDR BDR014 JUDDS (Jets only)	10000	Bradley
..... BDR	4000	Bridgeport
..... BDR JUDDS (/E, /F, /G only)	10000	Burlington
..... SAX V249 SBJ V30 ETX V162 HAR (Non jet/Non turboprop only)	8000	Capital City
..... MAD HFD CLOWW (/E, /F, /G only)	10000	Concord
..... DPK V16 DIXIE V1 LEEAH V268 BAL BAL294	6000	Dulles
..... KROLL AML (Single Engine only)		
..... HTO HTO034 MONDI	7000	Groton
..... HTO	3000	Hampton
..... MAD V1 HFD	5000	Hartford

**Approach Control Area  
(Including Satellites)**

	<b>Route</b>	<b>Highest Altitude</b>	<b>Destination</b>
	..... HTO V139 PVD V151 GAILS	9000	Hyannis
	..... CCC	2000	Islip (SATS)
	..... BDR JUDDS WHATE (/E, /F, /G only)	10000	Keene
	..... DPK	3000	Kennedy
	..... R/V LGA075	5000	LaGuardia
	..... HTO HTO302 NESSI LGA075	6000	LaGuardia
	..... SAX V249 SBJ LANNA V30 ETX V39 LRP (Props only)	8000	Lancaster
	..... BDR JUDDS WHATE (/E, /F, /G only)	10000	Lebanon
	..... DPK V16 CYN (Single Engine only)	6000	McGuire
	..... MAD HFD CLOWW (/E, /F, /G only)	10000	Manchester
	..... HTO V139 WACKY V374 MVY (Single Engine)	9000	Martha's Vineyard
	..... HTO V46 CLAMY (Twin Engine)	9000	Martha's Vineyard
	..... MAD	5000	Meriden
	..... DPK V16 VCN (Single Engine only)	6000	Millville
	..... HTO V46 CLAMY (Twin Engine)	9000	Nantucket
	..... HTO SEY V58 NEWBE DEEPO (Single Engine)	9000	Nantucket
	..... HTO V139 WACKY	9000	New Bedford
	..... HVN	4000	New Haven
	..... CMK V188 SAX	4000	Newark
	..... DPK V16 DIXIE V1 (Single Engine only)	6000	Norfolk
	..... DPK V16 DIXIE V276 ARD (Single Engine only)	6000	N. Philadelphia
	..... DPK V16 CYN V312 OOD (Single Engine only)	6000	Philadelphia
	..... MAD HFD CLOWW (/E, /F, /G only)	10000	Portland
	..... MAD HFD CLOWW (/E, /F, /G only)	10000	Portsmouth
	..... HTO V139 WACKY	9000	Providence
	..... HTO V139 WACKY	9000	Quonset
	..... SAX V249 SBJ V30 ETX V39 FLOAT (Non jet/Non turboprop only)	8000	Reading
	..... DPK V16 (Single Engine only)	6000	Richmond
	..... DPK V16 DIXIE V1 (Single Engine only)	6000	Salisbury
	..... DPK V16 DIXIE V1 V308 OTT (Single Engine only)	6000	Washington
	..... BDR BDR 288 RYMES	5000	Westchester Co.
	..... HTO BDR BDR 288 RYMES	6000	Westchester Co.
	..... HTO V308 GON	9000	Westerly
	..... DPK V16 DIXIE V229 PANZE V44 SIE (Single Engine only)	6000	Wildwood
	..... MAD V1 GRAYM	9000	Worcester
New York /Kennedy	..... SAX V249 SBJ V30 ETX (Non jet/Non turboprop)	8000	Allentown
	..... DIXIE V229 ACY (Props only)	6000	Atlantic City
	..... DIXIE V1 HOWIE (Jets only)	8000	Atlantic City
	..... DIXIE V1 V308 OTT (Props only)	6000	Andrews AFB
	..... BDR HFD CLOWW (/E, /F, /G only)	10000	Augusta
	..... DIXIE V16 ENO V268 SWANN (Props only)	6000	Baltimore
	..... BDR HFD CLOWW (/E, /F, /G only)	10000	Bangor
	..... BDR HFD CLOWW (/E, /F, /G only)	10000	Bar Harbor
	..... COL	2000	Belmar
	..... BDR MAD V475 V188 GON	9000	Block Island
	..... BDR V229 HFD V3 WOONS	9000	Boston
	..... BDR V229 HFD HFD053 DREEM	9000	Boston (North)
	..... BDR HFD FOSTY WOONS (/E, /F, /G only)	10000	Boston
	..... BDR BDR014 JUDDS	8000	Bradley
	..... BDR (Jets only)	10000	Bradley
	..... BDR	3000	Bridgeport
	..... BDR JUDDS (/E, /F, /G only)	10000	Burlington
	..... SAX V249 SBJ V30 ETX V162 HAR (Non jet/Non turboprop)	8000	Capital City
	..... BDR HFD CLOWW (/E, /F, /G only)	10000	Concord
	..... DIXIE V1 LEEAH V268 BAL BAL294 KROLL AML (Non-pressurized aircraft only)	6000	Dulles
	..... BDR MAD MAD126 MONDI	9000	Groton
	..... R/V CCC 232 CCC HTO	3000	Hampton
	..... BDR V229 HFD	9000	Hartford
	..... BDR V229 HFD V167 PVD V151 GAILS	9000	Hyannis
	..... R/V ILS 6 LOC (Text Info)	3000	Islip
	..... R/V CCC232 CCC	3000	Islip
	..... BDR JUDDS WHATE (/E, /F, /G only)	10000	Keene

Approach Control Area  
(Including Satellites)

Route	Highest Altitude	Destination
..... Direct	2000	LaGuardia
..... SAX V249 SBJ V30 ETX V162 V93 LRP (Props only)	8000	Lancaster
..... BDR JUDDS WHATE (/E, /F, /G only)	10000	Lebanon
..... DIXIE V16 CYN	6000	McGuire
..... BDR HFD CLOWW (/E, /F, /G only)	10000	Manchester
..... BDR MAD V475 V188 GON V374 MVY	9000	Martha's Vineyard
..... BDR MAD	3000	Meriden Markham
..... DIXIE V16 VCN (Props only)	6000	Millville
..... BDR MAD V475 V188 GON V58 NEWBE DEEPO	10000	Nantucket
..... COL V232 SBJ	3000	Newark
..... BDR MAD V475 V188 GON V374 MINNK	9000	New Bedford
..... DIXIE V1 (Props only)	6000	Norfolk
..... DIXIE V276 ARD	4000	N. Philadelphia
..... DIXIE V16 CYN V312 OOD (Props only)	6000	Philadelphia
..... DIXIE V16 CYN V312 OOD (Jets only)	8000	Philadelphia
..... BDR HFD CLOWW (/E, /F, /G only)	10000	Portland
..... BDR HFD CLOWW (/E, /F, /G only)	10000	Portsmouth
..... BDR MAD V475 V188 GON (210 kts +)	9000	Providence
..... BDR MAD V475 V188 GON	9000	Quonset
..... SAX V249 SBJ V30 ETX V39 FLOAT (Non jet/Non turboprop only)	8000	Reading
..... DIXIE V16 (Props only)	6000	Richmond
..... DIXIE V1 (Props only)	6000	Salisbury
..... DIXIE V1 V308 OTT (Props only)	6000	Washington
..... DPK V483 CMK	2000	Westchester Co
..... BDR MAD V475 V188 GON	9000	Westerly
..... DIXIE V229 PANZE V44 SIE (Props only)	6000	Wildwood
..... DIXIE V1 HOWIE (Jets only)	8000	Wildwood
..... BDR MAD V1 GRAYM	9000	Worcester
New York/ LaGuardia		
..... SAX V249 SBJ V30 ETX	8000	Allentown
..... DIXIE V229 ACY (Props only)	6000	Atlantic City
..... DIXIE V1 HOWIE (Jets only)	8000	Atlantic City
..... SAX V249 SBJ LANNA V30 ETX V39 LRP V93 BAL (Props only)	8000	Andrews AFB
..... BDR HFD CLOWW (/E, /F, /G only)	10000	Augusta
..... BDR HFD CLOWW (/E, /F, /G only)	10000	Bangor
..... SAX V249 SBJ LANNA V30 ETX V39 LRP V499 BAL (Props only)	8000	Baltimore
..... BDR HFD CLOWW (/E, /F, /G only)	10000	Bar Harbor
..... JFK COL	6000	Belmar
..... BDR MAD V475 V188 GON	9000	Block Island
..... BDR V229 HFD V3 WOONS	9000	Boston
..... BDR V229 HFD HFD053 DREEM	9000	Boston (North)
..... BDR HFD FOSTY WOONS (/E, /F, /G only)	10000	Boston
..... BDR BDR014 JUDDS	8000	Bradley
..... BDR (Jets only)	10000	Bradley
..... BDR 248 CCC285 PUGGS V229 BDR	5000	Bridgeport
..... R/V BDR248 BDR. . (Helicopter Route)	5000	Bridgeport (Points NE)
..... BDR JUDDS (/E, /F, /G only)	10000	Burlington
..... SAX V249 SBJ V30 ETX V162 HAR	8000	Capital City
..... BDR HFD CLOWW (/E, /F, /G only)	10000	Concord
..... SAX V249 SBJ LANNA V30 ETX V39 ROBT AML (Props only)	8000	Dulles
..... BDR MAD MAD126 MONDI	9000	Groton
..... BDR 248 BDR HTO	5000	Hampton
..... BDR V229 HFD	9000	Hartford
..... BDR V229 HFD V167 PVD V151 GAILS	9000	Hyannis
..... BDR 248 CCC285 CCC	5000	Islip
..... BDR JUDDS WHATE (/E, /F, /G only)	10000	Keene
..... DPK	5000	Kennedy
..... SBJ SAX V249 V30 ETX V162 V93 LRP (Props only)	7000	Lancaster
..... BDR JUDDS WHATE (/E, /F, /G only)	10000	Lebanon
..... DIXIE V16 CYN	6000	McGuire
..... BDR MAD V475 V188 GON V374 MVY	9000	Martha's Vineyard
..... BDR HFD CLOWW (/E, /F, /G only)	10000	Manchester
..... BDR MAD	5000	Meriden Markham
..... DIXIE V16 VCN (Props only)	6000	Millville
..... BDR MAD V475 V188 GON V58 NEWBE DEEPO	10000	Nantucket

**Approach Control Area  
(Including Satellites)**

	<b>Route</b>	<b>Highest Altitude</b>	<b>Destination</b>
	..... SBJ	3000	Newark
	..... BDR MAD V475 V188 GON V374 MINNK	9000	New Bedford
	..... DIXIE V1 (Props only)	6000	Norfolk
	..... BDR HFD CLOWW (/E, /F, /G only)	10000	Portland
	..... BDR HFD CLOWW(/E, /F, /G only)	10000	Portsmouth
	..... BDR MAD V475 V188 GON	9000	Providence
	..... BDR MAD V475 V188 GON	9000	Quonset
	..... SBJ SAX V249 V30 ETX V39 FLOAT	7000	Reading
	..... DIXIE V16 (Props only)	6000	Richmond
	..... DIXIE V1 (Props only)	6000	Salisbury
	..... SAX V249 SBJ LANNA V30 ETX V39 LRP V499 BAL(Props only)	8000	Washington
	..... CMK	3000	Westchester Co.
	..... DIXIE V229 PANZE V44 SIE (Props only)	6000	Wildwood
	..... DIXIE V1 HOWIE (Jets only)	8000	Wildwood
	..... BDR MAD V1 GRAYM	9000	Worcester
New York/Newark	..... LANNA V30 ETX (Jets only)	8000	Allentown
	..... LANNA V30 ETX (Props only)	6000	Allentown
	..... DIXIE V229 ACY (Props only)	6000	Atlantic City
	..... DIXIE V1 HOWIE (Jets only)	8000	Atlantic City
	..... BREZY V39 CMK V3 HFD CLOWW	10000	Augusta
	..... (/E, /F, /G only)		
	..... LANNA V30 ETX V39 LRP V499 BAL (Props only)	6000	Baltimore
	..... (Props 210 kts +)	8000	
	..... BREZY V39 CMK V3 HFD CLOWW	10000	Bangor
	..... (/E, /F, /G only)		
	..... BREZY V39 CMK V3 HFD CLOWW	10000	Bar Harbor
	..... (/E, /F, /G only)		
	..... COL	2000	Belmar
	..... BDR MAD V475 V188 GON (210 kts +)	9000	Block Island
	..... BREZY V39 CMK V3 HFD GON (- 210 kts)	9000	Block Island
	..... BDR V229 HFD HFD053 DREEM (210 kts +)	9000	Boston (North)
	..... BREZY V39 CMK V3 HFD HFD053 DREEM (-210 kts)	9000	Boston (North)
	..... BDR V229 HFD V3 WOONS (210 kts +)	9000	Boston
	..... BREZY V39 CMK V3 WOONS (-210 kts)	9000	Boston
	..... BREZY V39 CMK V3 HFD FOSTY WOONS	10000	Boston
	..... (/E, /F, /G only)		
	..... BDR (Jets only)	10000	Bradley
	..... BREZY V39 CMK V419 BRISS (Props only)	9000	Bradley
	..... BDR248 CCC285 V229 (All Jets)	5000	Bridgeport
	..... BREZY V39 CMK V374 DENNA (All Props)	6000	Bridgeport
	..... BREZY V39 CMK SOARS JUDDS (/E, /F, /G only)	10000	Burlington
	..... LANNA V30 ETX V162 HAR (Props only)	6000	Capital City
	..... BREZY V39 CMK V3 HFD CLOWW	10000	Concord
	..... (/E, /F, /G only)		
	..... BREZY V39 CMK	3000	Danbury
	..... LANNA V30 ETX V39 ROBERT AML (Props only)	6000	Dulles
	..... (Props 210 kts +)	8000	
	..... SAX V213 HELON	4000	Dutchess Co
	..... DIXIE V1 (Props 210 kts +)	6000	Grand Strand
	..... BDR MAD MAD126 MONDI ( + 210 kts )	9000	Groton
	..... BREZY V39 CMK V3 HFD GON (-210 kts)	9000	Groton
	..... BDR 248 BDR HTO (All Jets)	5000	Hampton
	..... BREZY V39 CMK V374 BETHA HTO (All Props)	6000	Hampton
	..... LANNA V30 ETX V162 HAR (Props only)	6000	Harrisburg Intl
	..... (Props 210 kts +)	8000	
	..... BDR V229 HFD (210 kts +)	9000	Hartford
	..... LANNA V30 ETX (Props only)	6000	Hazleton Muni
	..... (Props 210 kts +)	8000	
	..... BREZY V39 CMK V3 HFD (-210 kts)	9000	Hartford
	..... BDR V229 HFD V167 PVD V151 GAILS (210 kts +)	9000	Hyannis
	..... BREZY V39 CMK V3 HFD V167 PVD V151 GAILS (- 210 kts)	9000	Hyannis
	..... BDR 248 CCC285 CCC (All Jets)	5000	Islip
	..... BREZY V39 CMK V374 DENNA BDR CCC (All Props)	6000	Islip

Approach Control Area  
(Including Satellites)

Route	Highest Altitude	Destination
..... BREZY V39 CMK SOARS JUDDS WHATE (/E, /F, /G only)	10000	Keene
..... R/V DPK282 (EWR Dep 4 & EWRN)	5000	Kennedy
..... COL JFK (EWR Dep 22 & EWRN)	4000	Kennedy
..... LANNA V30 ETX V39 LRP (Props only)	6000	Lancaster
..... (Props 210 kts +)	8000	
..... BREZY V39 CMK SOARS JUDDS WHATE (/E, /F, /G only)	10000	Lebanon
..... (4)(5) LANNA V30 ETX	8000	Lehigh Valley Intl
..... DIXIE V16 (Props only)	6000	Lynchburg
		Rgnl/Preston Glenn Fld
..... BREZY V39 CMK V3 HFD CLOWW (/E, /F, /G only)	10000	Manchester
..... BDR MAD V475 V188 GON V374 MVY (210 kts +)	9000	Martha's Vineyard
..... BREZY V39 CMK V3 HFD GON V374 MVY (-210 kts)	9000	Martha's Vineyard
..... DIXIE V16 CYN	6000	McGuire
..... BDR MAD	5000	Meriden
..... (2) BREZY V39 CMK V3 YALER	5000	Meriden
..... DIXIE V16 VCN (Props only)	6000	Millville
..... BREZY V39 CMK V374 BETHA HTO	6000	Montauk
..... BREZY V39 CMK V3 HFD V58 NEWBE DEEPO	10000	Nantucket
..... BDR MAD V475 V188 GON V374 MINNK (210 kts +)	9000	New Bedford
..... BREZY V39 CMK V3 HFD V167 PVD (-210 kts)	9000	New Bedford
..... (4) BIGGY V3 MAZIE	8000	New Castle Co
..... (Props only)	4000	
..... DIXIE V1 (Props only)	6000	Norfolk
..... BIGGY V3 MAZIE	4000	Northeast Philadelphia
..... SAX V213 HELON	4000	Orange Co
..... (4) BIGGY V3 MAZIE	8000	Philadelphia Intl
..... (Props only)	4000	
..... BREZY V39 CMK V3 HFD CLOWW (/E, /F, /G only)	10000	Portland
..... BREZY V39 CMK V3 HFD CLOWW (/E, /F, /G only)	10000	Portsmouth
..... SBJ BIGGY B3 MAZIE	4000	Pottstown Limerick
..... BDR MAD V475 V188 GON (210 kts+)	9000	Providence
..... BREZY V39 CMK V3 HFD V167 PVD (-210 kts)	9000	Providence
..... BDR MAD V475 V188 GON (210 kts +)	9000	Quonset
..... BREZY V39 CMK V3 HFD V167 PVD (- 210 kts)	9000	Quonset
..... DIXIE V16 RIC V157 LVL V155 (Props only)	6000	Raleigh-Durham Intl
..... (4) SBJ LANNA V30 ETX	8000	Reading Rgnl/Carl A Spaatz Fld
..... (Props only)	4000	
..... DIXIE V16 (Props only)	6000	Richmond
..... LANNA V30 ETX V39 LRP V93 BAL (Props only)	6000	Ronald Reagan Washington Natl
..... (Props 210 kts +)	8000	
..... DIXIE V1 (Props only)	6000	Salisbury
..... SAX SAX022 MANEE	4000	Stewart Intl
..... SAX V213 HELON	4000	Sullivan Co Intl
..... BREZY V39 CMK V374 BETHA HTO	6000	The Francis S Gabreski Arpt
..... BIGGY V3 MAZIE	4000	Trenton Mercer
..... BREZY V39 CMK V374 DENNA	6000	Waterbury-Oxford
..... BREZY	3000	Westchester Co.
..... DIXIE V229 PANZE V44 SIE (Props only)	6000	Wildwood
..... Dixie V1 Howie (Jets only)	8000	Wildwood
..... BDR MAD V1 GRAYM (210 kts +)	9000	Worcester
..... BREZY V39 CMK V3 HFD V1 GRAYM (-210 kts)	9000	Worcester
New York/Stewart		
..... STUBY V487 CANAN	10000	Albany
..... STUBY V93 CON	10000	Augusta
..... STUBY V93 CON V39 AUG	10000	Bangor
..... STUBY V93 ENE	10000	Bar Harbor



Approach Control Area  
(Including Satellites)

	Route	Highest Altitude	Destination
	STUBY CEF CEF088 DREEM	10000	Bedford
	PWL HFD V3 WOONS	10000	Boston
	PWL PWL111 BRISS or PWL V106 BAF (BAF/CEF)	10000	Bradley
	STUBY V487 CAM	10000	Burlington
	STUBY V93 CON	10000	Concord
	PWL HFD GON	10000	Groton
	PWL PWL111 BRISS	10000	Hartford
	PWL HFD V167 PVD V151 GAILS	10000	Hyannis
	STUBY	10000	Keene
	STUBY	10000	Lebanon
	STUBY V93 EEN	10000	Manchester
	PWL HFD V374 MYY	10000	Martha's Vineyard
	PWL HFD V58 NEWBE DEEPO	10000	Nantucket
	PWL HFD V3 WOONS	10000	Norwood
	STUBY V93 EEN	10000	Portland
	PWL V106 RAYMY	10000	Portsmouth
	PWL HFD V167 PVD	10000	Providence
	PWL HFD V167 PVD V151 GAILS	10000	Provincetown
	WEARD DNY	10000	Syracuse
	PWL V106 BAF	10000	Worcester
New York/ Westchester	CMK V39 SOARS V487 CANAN	10000	Albany
	HUO V162 FJC	5000	Allentown
	DIXIE V229 ACY (Props only)	6000	Atlantic City
	DIXIE V1 HOWIE (Jets Only)	8000	Atlantic City
	CMK V3 HFD V229 GDM V39 CON	10000	Augusta
	CMK V3 HFD CLOWW (/E, /F, /G only)	10000	Augusta
	SAX V249 SBJ LANNA V30 ETX V39 LRP V499 BAL (Props only)	8000	Baltimore
	CMK V3 HFD V229 GDM V39 AUG	10000	Bangor
	CMK V3 HFD CLOWW (/E, /F, /G only)	10000	Bangor
	CMK V3 HFD CLOWW (/E, /F, /G only)	10000	Bar Harbor
	CMK V3 HFD V229 GDM V106 ENE	10000	Bar Harbor
	JFK COL	6000	Belmar
	CMK V3 HFD HFD053 DREEM	10000	Boston & NO SATS
	(3) CMK V3 WOONS	10000	Boston
	CMK V3 HFD FOSTY WOONS (/E, /F, /G only)	10000	Boston
	CMK V419 BRISS	10000	Bradley
	CMK V374 DENNA	5000	Bridgeport
	CMK V39 SOARS V487 BTV	10000	Burlington
	CMK SOARS JUDDS (/E, /F, /G only)	10000	Burlington
	HUO V162 HAR	5000	Capital City
	CMK V3 HFD V229 GDM V39 CON	10000	Concord
	CMK V3 HFD CLOWW (/E, /F, /G only)	10000	Concord
	SAX V249 SBJ LANNA V30 ETX V39 ROBT AML (Props only)	8000	Dulles
	CMK V3 HFD GON	10000	Groton
	CMK V374 BETHA HTO	5000	Hampton
	CMK V3 HFD	10000	Hartford
	CMK V3 HFD V167 PVD V151 GAILS	10000	Hyannis
	CMK V374 DENNA BDR CCC	5000	Islip
	CMK V3 HFD V229 GDM	10000	Keene
	CMK SOARS JUDDS WHATE (/E, /F, /G only)	10000	Keene
	CMK V483 DPK	3000	Kennedy
	DIRECT	3000	LaGuardia
	HUO V162 ETX V39 LRP	5000	Lancaster
	CMK V3 HFD V229 GDM V151	10000	Lebanon
	CMK SOARS JUDDS WHATE (/E, /F, /G only)	10000	Lebanon
	CMK V3 HFD V229 GDM V106 MHT	10000	Manchester
	CMK V3 HFD CLOWW (/E, /F, /G only)	10000	Manchester
	CMK V3 HFD GON V374 MYY	10000	Martha's Vineyard
	DIXIE V16 CYN	6000	McGuire
	Dixie V16 VCN (Props only)	6000	Millville
	CMK V3 HFD V58 NEWBE DEEPO	10000	Nantucket
	CMK V374 DENNA	5000	New Haven
	NYACK V188 SAX (Props)	4000	Newark
	NYACK V188 SAX (Jets)	5000	Newark
	DIXIE V1 (Props only)	6000	Norfolk
	CMK V3 WOONS	10000	Norwood & N SATS
	CMK V3 HFD V229 GDM V106 ENE	10000	Portland

Approach Control Area  
(Including Satellites)

	Route	Highest Altitude	Destination
Norfolk	..... CMK V3 HFD CLOWW (/E, /F, /G only)	10000	Portland
	..... CMK V3 HFD V229 GDM V106 RAYMY	10000	Portsmouth
	..... CMK V3 HFD CLOWW (/E, /F, /G only)	10000	Portsmouth
	..... CMK V3 HFD V167 PVD	10000	Providence
	..... CMK V3 HFD V167 PVD V151 GAILS	10000	Provincetown
	..... SAX V249 SBJ V30 ETX V39 FLOAT (Props only)	7000	Reading
	..... DIXIE V16 (Props only)	6000	Richmond
	..... SAX V249 SBJ LANNA V30 ETX V39 LRP V93	8000	Ronald Reagan
	..... BAL (Props only)		Washington Natl
	..... DIXIE V1 (Props only)	6000	Salisbury
	..... HAAYS HUO V273 SYR	10000	Syracuse
	..... DIXIE V229 PANZE V44 SIE (Props only)	6000	Wildwood
	..... DIXIE V1 HOWIE (Jets only)	8000	Wildwood
	..... CMK V3 HFD V1 GRAYM	10000	Worcester
Norfolk	..... HCM V33 COLIN V16 PXT	9000	Patuxent River
	..... HPW V260 RIC (West-bound only)	9000	Richmond
	..... CCV V1 SBY	5000	Salisbury
	..... CCV V139 SWL (Northeast-bound only)	5000	Snow Hill
	..... HCM HCM330 SVILL	7000	Washington
Patuxent	..... SWL V139	5000	Atlantic City
	..... PXT V16 V44	5000	Atlantic City
	..... SBY V1 V44	5000	Atlantic City
	..... SBY332 BAL133	4000	Baltimore
	..... PXT V93	5000	Baltimore
	..... SBY V29 ENO	5000	Dover AFB
	..... PXT V16 ENO	5000	Dover AFB
	..... PXT V16	5000	Dover AFB
	..... SBY VI ATR	5000	Dover AFB
	..... PXT V213 V286 FLUKY	6000	Dulles
	..... COLIN V33 HCM	6000	Newport News
	..... SBY V1 CCV	6000	Norfolk
	..... SWL V139 CCV	6000	Norfolk
	..... WHINO V33 V286 STEIN	5000	Norfolk
	..... PXT V213 ENO V29 DQO	5000	Philadelphia
	..... SBY V29 DQO	5000	Philadelphia
	..... PXT V16	6000	Richmond
	..... SBY V1 JAMIE HCM	6000	Richmond
	..... COLIN V33 HCM	6000	Richmond
	..... PXT V31 OTT (No Overflight of D.C. Area)	4000	Washington
	..... SBY CHURK OTT (No Overflight of D.C. Area)	4000	Washington
Philadelphia	..... RV FJC185 FJC	4000	Allentown
	..... OOD VCN V184 ACY	3000	Atlantic City
	..... MXE V378 BAL	6000	Baltimore
	..... DQO V166 V378 BAL	6000	Baltimore
	..... OOD V157 ENO	4000	Dover AFB
	..... DQO V29 ENO	4000	Dover AFB
	..... MXE V408 ROBERT AML	8000	Dulles
	..... MXE V184 MXE283027 V469 HAR	6000	Harrisburg
	..... PNE PNE090 ARD126 V16 DIXIE (Direct) (Single Engine only)	5000	Kennedy
	..... PNE PNE090 ARD126 V16 V276 ZIGGI (Direct) (No Single Engine)	5000	Kennedy
	..... RBV V123 PROUD (Jets only)	8000	LaGuardia
	..... MXE MXE295 HABER LRP137 LRP	4000	Lancaster
	..... ARD V214 METRO (Non Turbojets only)	5000	Newark
	..... RBV RBV005 OWBIE (Turbojet only)	7000	Newark
	..... MXE MXE334 HUMEL	4000	Reading
	..... REGLE V3 SBJ	4000	Teterboro
	..... MXE V408 VINNY V93 BAL	8000	Washington
	..... DQO V166 V93 BAL	8000	Washington
	..... RV FJC185 FJC BWZ SAX V39 BREZY	5000	Westchester Co.
	..... RV FJC185 FJC V149 RITTY	5000	Wilkes Barre/Scranton
Pittsburgh	..... BSV (Westbound only)	8000	Akron-Canton
	..... V37 (Southbound only)	8000	Clarksburg
	..... EWC V37 (Northbound only)	8000	Erie

**Approach Control Area  
(Including Satellites)**

	<b>Route</b>	<b>Highest Altitude</b>	<b>Destination</b>
	..... EWC (Northbound only)	6000	Franklin
	..... EWC TDT (Northbound only)	6000	Jamestown
	..... DIRECT (Southbound only)	8000	Morgantown
	..... EWC (Northbound only)	8000	Youngstown
Portland	..... CON CAM	10000	Albany
	..... DIRECT	10000	Bangor
	..... DIRECT	10000	Bar Harbor
	..... ENE LWM	10000	Bedford & NO SATS
	..... (3) ENE PSM PSM221 STEVO LWM	10000	Boston
	..... (5) ENE V167 SCUPP	10000	Boston
	..... ENE V106 GDM V229 WITNY	10000	Bradley
	..... CLOWW WITNY (/E, /F, /G only)	10000	Bradley
	..... ENE V106 GDM V229 HFD	10000	Bridgeport
	..... CLOWW WITNY HFD (/E, /F, /G only)	10000	Bridgeport
	..... (3) ENE V106 GDM V229 HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
	..... (3) CLOWW WITNY HFD V1 MAD V475 BDR BDR288 RYMES (/E, /F, /G only)	10000	Danbury
	..... ENE V106 GDM V14 ORW V16 DPK	10000	Farmingdale
	..... ENE V106 GDM V14 ORW GON	10000	Groton
	..... ENE V106 GDM V229 HFD	10000	Hartford
	..... CLOWW WITNY HFD (/E, /F, /G only)	10000	Hartford
	..... ENE V139 TONNI	10000	Hyannis
	..... ENE V106 GDM V14 ORW V16 CCC	10000	Islip
	..... ENE V106 GDM V14 ORW V16 DPK	10000	Kennedy
	..... ENE V139 TONNI	10000	Marthas Vineyard
	..... ENE V139 TONNI	10000	Nantucket
	..... (1) ENE V106 GDM V229 SEALL V188 CMK V623 SAX	10000	Newark & SATS
	..... (3) ENE V106 GDM V3 CMK V623 SAX	10000	Newark & SATS
	..... (1) CLOWW WITNY HFD V229 V188 CMK V623 SAX (/E, /F, /G only)	10000	Newark & SATS
	..... (3) CLOWW WITNY HFD V3 CMK V623 SAX (/E, /F, /G only)	10000	Newark & SATS
	..... CLOWW WITNY HFD (/E, /F, /G only)	10000	New Haven
	..... (1) ENE V106 GDM V14 ORW V16 V276 ARD	10000	N.E. Philadelphia
	..... ENE V106 GDM V14 ORW V308 MANTA V276 ARD	10000	N.E. Philadelphia
	..... ENE LWM	10000	Norwood
	..... ENE V139 BURDY	10000	Providence
	..... ENE V139 TONNI	10000	Provincetown
	..... ENE V93 STUBY V205 TRESA	10000	Stewart
	..... CLOWW WITNY HFD (/E, /F, /G only)	10000	Waterbury-Oxford
	..... (3) CLOWW WITNY HFD V1 MAD V475 BDR BDR288 RYMES (/E, /F, /G only)	10000	White Plains
	..... ENE V106 GDM V229 SPENO	10000	Worcester
Portland/Augusta	..... CON CAM	10000	Albany
	..... DIRECT	10000	Bangor
	..... DIRECT	10000	Bar Harbor
	..... ENE LWM	10000	Bedford & NO SATS
	..... (3) ENE PSM PSM 221 STEVO LWM	10000	Boston
	..... (5) ENE V167 SCUPP	10000	Boston
	..... LABEL V39 GDM V229 WITNY	10000	Bradley
	..... CLOWW WITNY (/E, /F, /G only)	10000	Bradley
	..... LABEL V39 GDM V229 HFD	10000	Bridgeport
	..... CLOWW WITNY HFD (/E, /F, /G only)	10000	Bridgeport
	..... LABEL V39 CON	10000	Concord
	..... (3) LABEL V39 GDM V229 HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
	..... (3) CLOWW WITNY HFD V1 MAD V475 BDR BDR288 RYMES (/E, /F, /G only)	10000	Danbury
	..... LABEL V39 GDM V14 ORW V16 DPK	10000	Farmingdale
	..... LABEL V39 GDM V14 ORW GON	10000	Groton
	..... LABEL V39 GDM V229 HFD	10000	Hartford
	..... CLOWW WITNY HFD (/E, /F, /G only)	10000	Hartford
	..... ENE V139 TONNI	10000	Hyannis
	..... LABEL V39 GDM V14 ORW V16 CCC	10000	Islip
	..... LABEL V39 GDM V14 ORW V16 DPK	10000	Kennedy

Approach Control Area  
(Including Satellites)

	Route	Highest Altitude	Destination
.....	ENE MHT	10000	Manchester
.....	ENE V139 TONNI	10000	Marthas Vineyard
.....	ENE V139 TONNI	10000	Nantucket
.....	(1) LABEL V39 GDM V229 SEALL V188 CMK V623 SAX	10000	Newark & SATS
.....	(3) LABEL V39 GDM V3 CMK V623 SAX	10000	Newark & SATS
.....	(1) CLOWW WITNY HFD V229 V188 CMK V623 SAX (/E, /F, /G only)	10000	Newark & SATS
.....	(3) CLOWW WITNY HFD V3 CMK V623 SAX (/E, /F, /G only)	10000	Newark & SATS
.....	CLOWW WITNY HFD (/E, /F, /G only)	10000	New Haven
.....	(1) LABEL V39 GDM V14 ORW V16 V276 ARD	10000	N.E. Philadelphia
.....	LABEL V39 GDM V14 ORW V308 MANTA V276 ARD	10000	N.E. Philadelphia
.....	ENE LWM	10000	Norwood
.....	ENE	10000	Portsmouth
.....	ENE V139 BURDY	10000	Providence
.....	ENE V139 TONNI	10000	Provincetown
.....	LABEL V39 STUBY V205 TRESA	10000	Stewart
.....	CLOWW WITNY HFD (/E, /F, /G only)	10000	Waterbury-Oxford
.....	(3) CLOWW WITNY HFD V1 MAD V475 BDR BDR288 RYMES (/E, /F, /G only)	10000	White Plain
.....	LABEL V39 GDM V229 SPENO	10000	Worcester
Providence	PUT ALB	10000	Albany
.....	HFD PWL V106 WEETS HUO V162	5000	Allentown/Harrisburg
.....	(1) ORW V16 JFK V229	10000	Atlantic City
.....	WOONS BOS PSM ENE	10000	Augusta
.....	(1) ORW V16 ENO V268 SWANN	10000	Baltimore
.....	WOONS BOS PSM ENE BGR	10000	Bangor
.....	WOONS BOS PSM ENE	10000	Bar Harbor
.....	WOONS	10000	Bedford & NO SATS
.....	(3) WOONS	10000	Boston
.....	(5) PVD V151 INNDY	10000	Boston
.....	PVD V405 BDL	10000	Bradley
.....	HFD	10000	Bridgeport
.....	PUB ALB V14	10000	Buffalo
.....	PUT V151 GDM V229	10000	Burlington
.....	WOONS MHT CON	10000	Concord
.....	(3) HFD V1 MAD V475 BDR BDR288 RYMES	10000	Danbury
.....	(5) PUT BAF IGN V157 HAARP	10000	Danbury
.....	(1) ORW V16 ENO	10000	Dover AFB
.....	PUT CTR V270	10000	Elmira
.....	PUT CTR V270	10000	Erie
.....	SEY HTO V46 DPK	10000	Farmingdale
.....	HFD	10000	Hartford
.....	PVD V151 GAILS	10000	Hyannis
.....	SEY HTO V46 CCC	10000	Islip
.....	PUT V151 GDM	10000	Keene
.....	SEY HTO V46 DPK	10000	Kennedy
.....	PVD V167 HFD V1 MAD V475	10000	LaGuardia
.....	PUT V151	10000	Lebanon
.....	WOONS	10000	Manchester
.....	PVD V167 TUTOR	10000	Marthas Vineyard
.....	(1) ORW V16 CYN	10000	McGuire AFB
.....	PVD PVD143 CLAMY	10000	Nantucket
.....	(1) PVD V167 HFD V229 SEALL V188 CMK V623 SAX	10000	Newark & SATS
.....	(3) PVD V167 HFD V3 CMK V623 SAX	10000	Newark & SATS
.....	HFD	10000	New Haven
.....	(1) ORW V16 DIXIE V276 ARD	10000	N.E. Philadelphia
.....	WOONS	10000	Norwood & SO SATS
.....	(1) ORW V16 VCN OOD	10000	Philadelphia
.....	WOONS BOS PSM ENE	10000	Portland
.....	WOONS BOS	10000	Portsmouth
.....	PVD V151 GAILS	10000	Provincetown
.....	(1) ORW V16	10000	Richmond
.....	PUT ALB	10000	Rochester
.....	PVD V405 BDL V205 TRESA	10000	Stewart
.....	PUT ALB	10000	Syracuse
.....	(1) ORW V16 DIXIE V276 ARD	10000	Trenton

Approach Control Area (Including Satellites)	Route	Highest Altitude	Destination
	..... HFD	10000	Waterbury-Oxford
	..... SEY HTO V46 CCC	10000	Westhampton Beach
	..... PVD V167 HFD V1 MAD V475 BDR BDR288	10000	White Plains
	..... RYMES		
	..... HFD PWL V106 LHY	5000	Wilkes-Barre
	..... PUT	10000	Worcester
Providence/Groton	..... GON BAF V146	10000	Albany
	..... HFD PWL V106 WEETS HUO V162	5000	Allentown/Harrisburg
	..... (1) GON V374 CREAM V16 JFK V229	10000	Atlantic City
	..... ORW V16 BOS PSM ENE	10000	Augusta
	..... (1) GON V374 CREAM V16 ENO V268 SWANN	10000	Baltimore
	..... ORW V16 BOS PSM ENE BGR	10000	Bangor
	..... ORW V16 BOS PSM ENE	10000	Bar Harbor
	..... ORW V16 WOONS	10000	Bedford & NO SATS
	..... (3) ORW V16 WOONS	10000	Boston
	..... (5) PVD V151 INNDY	10000	Boston
	..... HFD	10000	Bradley
	..... GON V374 CREAM	10000	Bridgeport
	..... GON BAF V146 ALB V14	10000	Buffalo
	..... ORW V14 GDM V229	10000	Burlington
	..... ORW V16 WOONS MHT CON	10000	Concord
	..... (3) GON V374 CREAM BDR BDR288 RYMES	10000	Danbury
	..... (5) ORW BAF IGN V157 HAARP	10000	Danbury
	..... (1) GON V374 CREAM V16 ENO	10000	Dover AFB
	..... GON CTR V270	10000	Elmira
	..... GON CTR V270	10000	Erie
	..... GON V374 CREAM V16 DPK	10000	Farmingdale
	..... HFD	10000	Hartford
	..... PVD V151 GAILS	10000	Hyannis
	..... GON V374 V16 CCC	10000	Islip
	..... ORW V14 GDM	10000	Keene
	..... GON V374 CREAM V16 DPK	10000	Kennedy
	..... GON V374 CREAM BDR V475	10000	LaGuardia
	..... ORW V14 GDM V151	10000	Lebanon
	..... ORW V16 WOONS	10000	Manchester
	..... GON V374 MZY	10000	Marthas Vineyard
	..... (1) GON V374 CREAM V16 CYN	10000	McGuire AFB
	..... GON V58 NEWBE DEEPO	10000	Nantucket
	..... (1) GON HFD V229 SEALL V188 CMK V623 SAX	10000	Neward & SATS
	..... (3) GON HFD V3 CMK V623 SAX	10000	Newark & SATS
	..... GON V374 CREAM	10000	New Haven
	..... (1) GON V374 CREAM V16 DIXIE V276 ARD	10000	N.E. Philadelphia
	..... ORW V16 WOONS	10000	Norwood & SO SATS
	..... (1) GON V374 CREAM V16 VCN OOD	10000	Philadelphia
	..... ORW V16 WOONS BOS PSM ENE	10000	Portland
	..... ORW V16 WOONS BOS	10000	Portsmouth
	..... PVD V151 GAILS	10000	Provincetown
	..... (1) GON V374 CREAM V16	10000	Richmond
	..... GON BAF V146 ALB	10000	Rochester
	..... GON BDL V205 TRESA	10000	Stewart
	..... GON BAF V146 ALB	10000	Syracuse
	..... (1) GON V374 CREAM V16 DIXIE V276 ARD	10000	Trenton
	..... GON V374 CREAM	10000	Waterbury-Oxford
	..... GON V374 V16 CCC	10000	Westhampton Beach
	..... GON V374 CREAM BDR BDR288 RYMES	10000	White Plains
	..... HFD PWL V106 LHY	5000	Wilkes-Barre
	..... ORW V14 GRAYM	10000	Worcester
Reading	..... ETX	3000	Allentown
	..... BOYER V12 HAR	4000	Harrisburg
	..... V39	4000	Lancaster
	..... FJC BWZ	5000	Newark
	..... PTW	5000	No.Philadelphia
	..... MXE 355 BUNTS	5000	Philadelphia
	..... V93	5000	Wilkes-Barre
	..... MXE V29 DQO	5000	Wilmington
Richmond	..... V286 STEIN	5000	Norfolk
	..... V33 HCM	6000	Norfolk
	..... V38 HCM	9000	Norfolk

Approach Control Area (Including Satellites)	Route	Highest Altitude	Destination
Roanoke	..... V16	5000	Patuxent River NAS
	..... V33	5000	Patuxent River
	..... V376	8000	Washington
	..... V155	4000	Washington
	..... BRV	5000	Washington
	..... PSK V45	7000	Greensboro
Rochester	..... V103	10000	Greensboro
	..... V31 V14	10000	Albany
	..... V119 GEE V252	8000	Binghamton
	..... V2	10000	Buffalo
	..... V119 GEE V464 DKK V14 MENTO	10000	Cleveland
	..... V119 GEE V464	10000	Dunkirk
	..... V147	8000	Elmira
	..... V119 GEE V464 DKK V14	10000	Erie
	..... V34 BEEPS	8000	Ithaca
	..... V2 BUF V115	6000	Jamestown
	..... V119 GEE V464 LANGS V115	10000	Jamestown
	..... V510 EHMANN	10000	Niagara Falls
	..... V119 GEE V464 DKK V14 ERI V37 (Overflight traffic only)	10000	Pittsburgh
	..... V2	10000	Syracuse
Syracuse	..... V119 GEE V464 DKK V14 ERI V43	10000	Youngstown
	..... VESPE V14 ALB	10000	Albany
	..... V483 SHERB V14 ALB GDM V431 LOBBY	10000	Bedford
	..... V29	6000	Binghamton
	..... V483 SHERB V14 ALB GDM V431 REVER	10000	Boston
	..... ALB	10000	Bradley
	..... RKA V433 PETER V270 ATHOS V44 DENNA	10000	Bridgeport
	..... (3) RKA V433 TRESA V123 HAARP	10000	Danbury
	..... V35	8000	Elmira
	..... V29 V428	8000	Elmira
	..... ALB V130 BDL GON	10000	Groton
	..... ALB	10000	Hartford
	..... ALB V130 BDL V405 PVD V151 GAILS	10000	Hyannis
	..... ALB V130 BDL V405 MVY	10000	Marthas Vineyard
	..... ALB V130 BDL V405 MVY	10000	Nantucket
	..... V483 SHERB V14 ALB GDM V431 LOBBY	10000	Norwood
	..... CAM CON	10000	Portland
	..... ALB V130 BDL V405 PVD	10000	Providence
	..... ALB V130 BDL V405 PVD V151 GAILS	10000	Provincetown
Washington	..... V14	10000	Rochester
	..... ALB V130 MOLDS	10000	Worcester
	..... DIRECT	4000	Baltimore
	..... DIRECT	3000	Dulles
	..... V265	5000	Harrisburg
	..... V265 V457 LRP	5000	Lancaster
	..... V265 EMI V419 MXE ARD V214 METRO (-180 kts only)	7000	Newark
	..... DIRECT	3000	Patuxent River NAS
	..... V123 V433 DQO	7000	Philadelphia
	..... V155 COATT	8000	Richmond
	..... BRV	6000	Richmond
	..... V286	5000	Richmond
	..... BAL V378 MXE V3 SBJ TEB (-180 kts only)	7000	Teterboro
Westchester (See New York/Westchester)			
Wilkes-Barre	..... V164 ETX	5000	Allentown
	..... V29	8000	Binghamton
	..... V149	8000	Binghamton
	..... V499	7000	Binghamton
	..... V147	8000	Elmira
	..... V36	8000	Elmira
	..... V106 SEG V31	8000	Harrisburg
	..... HZL RAV	8000	Harrisburg
	..... V93	6000	Lancaster
	..... V613 FJC BWZ (Non jets only)	5000	Newark
	..... V613 FJC BWZ (Jets only)	6000	Newark
	..... V93	6000	Reading

## NORTH AMERICAN ROUTES

### NORTH AMERICAN ROUTES FOR NORTH ATLANTIC TRAFFIC (NAR)

#### “NORTH AMERICAN ROUTE PROGRAM (NRP).”

##### Introduction

(a) The North American Route Program (NRP) is a joint FAA and NAV CANADA program, the objective of which is to harmonize and adopt common procedures, to the extent possible, for application to random route flight operations at and above FL 290 within the conterminous U.S. and Canada.

(b) The NRP will be implemented through various phases with the end goal of allowing all international and domestic flight operations to participate in the NRP throughout the conterminous U.S., Alaska, and Canada.

(c) Flights may participate in the NRP under specific guidelines and filing requirements:

1. provided the flight originates and terminates within conterminous U.S. and Canada; or,
2. for North Atlantic international flights operating within the North American Route (NAR) System.

##### FAA/NAV CANADA Common Procedures

The following common FAA and NAV CANADA procedures apply:

(a) Flights to operate at or above FL 290.

(b) For that portion of flight within 200 NM of the departure or destination airport, flights shall be filed and operated via Standard Instrument Departures (SID), Departure Procedures (DP), Standard Terminal Arrival Routes (STAR) or published Preferred IFR Routes. If none of the above are available, airways may be used.

(c) NRP flights are not normally subject to routing restrictions such as published Preferred IFR Routes or airways, beyond a 200 NM radius of both the departure and destination airports.

(d) Flight planning requirements are:

1. routes shall contain at least one significant point in each delegated area of airspace jurisdiction for each FAA Air Route Traffic Control Center (ARTCC) or Canadian FIR/CTA;

2. significant points may be a navigational aid or waypoint defined in fix-radial distance (FRD) format from a navigational aid. Within Canadian airspace a significant point may also be a coordinate described in degrees and minutes of latitude/longitude;

3. for routes that cross the U.S./Canadian border, a significant point within 30 NM of either side of the border shall be filed;

4. significant points should be filed for all turnpoints;

5. route(s) shall avoid active Class F airspace;

6. “NRP” shall be entered in the Remarks section of the flight plan; and

7. flight plans to be filed at least one hour prior to departure.

(e) In the event that a NRP aircraft has to be recleared due to weather or tactical reasons, ATC will attempt to return the aircraft to the original NRP routing as soon as practical. Aircraft that depart from the NRP routing due to a pilot request or an ATC clearance authorizing a direct routing will be considered as a non participant of the NRP.

(f) Unless published routing restrictions are in effect, North Atlantic International flights planning to operate within the NAR System may file NRP routes beyond 200 NM of the NAR identified system airport and the published Inland Navigation Fixes (INFs).

##### Specific FAA Requirements

The following specific FAA requirements apply:

(a) Flights may not be filed via a DP/STAR within offshore transition areas (12 NM or more off the U.S. shoreline).

(b) Flights may be filed and flown on the complete transition of DPs and/or STARs for specific airports in lieu of the 200 NM route planning requirement described in Common Procedures, paragraph “b” above. For listing of the airports refer to the current FAA Advisory Circular–NRP.

(c) Flights not meeting the above guidelines are to be requested through the FAA nonpreferred route programs. Those requests will be approved/disapproved on a workload permitting basis.

##### NORTH AMERICAN ROUTE (NAR) SYSTEM

##### GENERAL

a. The objectives of the NAR System are as follows:

1. To expedite flight planning.
2. To reduce the complexity of route clearances and thereby minimize the confusion and error potential inherent in lengthy transmissions and readbacks; and
3. To minimize the time spent in the route clearance delivery function.

b. The NAR System is designed to accommodate major airports in North America where the volume of North Atlantic (NAT) traffic and route complexity dictate a need to meet the above objectives. It is for the use of traffic entering/exiting the NAT and consists of a series of pre-planned routes from/to coastal fixes and identified system airports. Most of the routes are divided into two portions:

1. Common Portion: That portion of the route between specified coastal fix and a specified inland navigation fix (INF). Some routes have a common portion only.
2. Non-common Portion: That portion of the route between a specified INF and a system airport. The routes are within the high level airspace structure with a transition to/from system airports.

c. The routes are prefixed by the abbreviation "N" with the numbering for the common portions orientated geographically from south to north. The ODD numbers have eastbound applications while the EVEN numbers apply to westbound. Following a one- to three-digit number, an alpha character indicates the validation codes and forms part of the route identifier. Validation codes are associated to amendments to the common routes only and not to non-common route portions.

d. Since a primary function of the NAR system is to compliment the NAT traffic flow; a limited number of NAR routes, appropriate for the coastal fixes serving the organized OTS and the domestic traffic organization, are included in the daily NAT/OTS message published by the Gander and Shanwick Oceanic Area Centers.

e. Aircraft can only join the NAR system:

1. At an identified coastal fix; or
2. On departure from one of the identified system airports; or
3. At an identified INF.

#### FLIGHT PLANNING—GENERAL

##### Westbound

a. Westbound routes begin at the coastal fixes, thence along common route portions to an INF and then fan out along non common routes to selected system airports;

b. For aircraft proceeding to an identified system airport and the route of flight to destination is described by a single NAR designator, use the designator;

c. For aircraft proceeding to a non system airport but the route of flight is described by the common route portion to an identified INF, use the designator to the INF followed by a detailed routing to the destination.

##### Eastbound

a. Eastbound routes only have a common portion from the INF to a coastal fix;

b. When the route of flight is described by a single NAR designator, use the designator;

c. For aircraft departing from a non system airport, file via an appropriate detailed routing to the applicable INF and thence via the common portion to the coastal fix using the NAR designator;

##### General

For those cases not described above, a detailed routing is required.

#### NAR REQUIREMENT

##### General

a. Generally there is no requirement to flight plan and operate using the NAR system. However ATC requires eastbound aircraft intending to operate on the NAT OTS and operating wholly on or south of a line between the intersections BAREE and DOTTY to flight plan and operate using one of the NARs published on the daily OTS Message.

b. NARs may be assigned by air traffic control for the tactical management of air traffic in Canadian domestic airspace.

c. For operators who elect not to use the NAR system, the rules of the NRP apply.

#### ROUTE CLEARANCES

a. For aircraft operating within the NAR System, the ATC routing clearance and pilot readback will be indicated by the NAR designator, e.g., "North American Route 105B";

b. For aircraft operating in the NAR System, but only using the common route portion, the ATC routing clearance and pilot readback will be indicated by the NAR designator followed by the detailed routing;

c. For aircraft not operating in the NAR System, the ATC routing clearance and pilot readback will be via a detailed route;

d. Aircraft cleared to a system airport via a NAR designator are to follow the common and the non-common portion of the route to a system airport. If either the common or non-common portion of the issued NAR is incompatible or unacceptable, the pilot is to advise ATC accordingly.



## DOCUMENTATION

a. It is expected that the following NAR documentation will be carried on the flight deck of each aircraft operating within the NAR system:

1. The current publications of NAV CANADA Canadian Flight Supplement; or Federal Aviation Administration Airport/Facility Directory Northeast U.S. (AFDNE); or another product which provides the current NAR; and

2. the information in the current NAT/OTS message.

b. Changes to the NAR routes are advertised in the monthly publication Notices to Airmen Publication (NTAP).

## COMMON PROCEDURES FOR RADIO COMMUNICATIONS FAILURE

a. The following procedures are intended to provide general guidance for North Atlantic (NAT) aircraft experiencing a communications failure. These procedures are intended to complement and not supersede state procedures/regulations. It is not possible to provide guidance for all situations associated with a communications failure.

1. If so equipped, the pilot of an aircraft experiencing a two-way radio communications failure shall:

i. operate the secondary radar transponder on identity Mode A) Code 7600 and Mode C; and

ii. attempt to contact any ATC facility or another aircraft and inform them of the difficulty and request they relay information to the ATC facility with whom communications are intended.

b. Communications failure prior to entering NAT oceanic airspace

1. If operating with a received and acknowledged oceanic clearance, the pilot shall enter oceanic airspace at the cleared oceanic entry point, level and speed and proceed in accordance with the received and acknowledged oceanic clearance. Any level or speed changes required to comply with the oceanic clearance shall be completed within the vicinity of the oceanic entry point.

2. If operating without a received and acknowledged oceanic clearance, the pilot shall enter oceanic airspace at the first oceanic entry point, level and speed, as contained in the filed flight plan and proceed via the filed flight plan route to landfall. That first oceanic level and speed shall be maintained to landfall.

c. Communications failure prior to exiting NAT oceanic airspace

1. Cleared on flight plan route

The pilot shall proceed in accordance with the last received and acknowledged oceanic clearance to the last specified oceanic route point, normally landfall, then continue on the flight plan route. Maintain the last assigned oceanic level and speed to landfall. After passing the last specified oceanic route point, conform with the relevant State procedures/regulations.

2. Cleared on other than flight plan route

The pilot shall proceed in accordance with the last received and acknowledged oceanic clearance to the last specified oceanic route point, normally landfall. After passing this point, rejoin the filed flight plan route by proceeding directly to the next significant point ahead of the track of the aircraft as contained in the filed flight plan. Where possible use published ATS route structures, then continue on the flight plan route. Maintain the last assigned oceanic level and speed to the last specified oceanic route point. After this point conform with the relevant State procedures/regulations.

## NORTH AMERICAN ROUTES (NAR)

The following listing divides the NAR Route descriptions into two sections according to the direction of flight (eastbound or westbound). Each section is subdivided according to the route portion (common or non-common). The common portion describes the NAR route between the Coastal Fix and the Inland Navigational Facility/Fix. The non-common portion describes the route between the NAR route system airport being used and the Inland Navigational Facility/Fix.

## COMMON PORTION (EASTBOUND)

NAR Designator	Inland Navigation Facility/Fix	Route Description	Coastal Fix
N5B	SIE	B24 LYNUS	SLATN
N7A	MANTA	OWENZ LINND R56	SLATN
N13C	SIE	B24 LYNUS	JOBBC
N15B	MANTA	OWENZ LINND R56 KENDA	JOBBC
N17B	VITOL	Direct	CARAC
N19B	ALLEX	Direct	CARAC
N21C	VITOL	LOMPI	JAROM
N23E	WHALE	LOMPI	JAROM
N25B	EBONY	LOMPI	JAROM
N27A	VITOL	NANSO	RAFIN
N29B	WHALE	NANSO	RAFIN
N31E	KANNI	NANSO	RAFIN
N33C	MIILS	Direct	BANCS
N35A	WHALE	Direct	BANCS
N37B	KANNI	Direct	BANCS
N39A	BRADD	Direct	BANCS
N41C	MIILS	Direct	BANCS
N43A	KANNI	Direct	COLOR
N45B	BRADD	Direct	COLOR

NAR Designator	Inland Navigation Facility/Fix	Route Description	Coastal Fix
N47A	TUSKY	Direct	COLOR
N49A	MIILS	Direct	COLOR
N51B	KANNI	Direct	YYT
N53B	BRADD	Direct	YYT
N55B	TUSKY	Direct	YYT
N57B	ALLEX	Direct	YYT
N59A	MIILS	Direct	YYT
N61B	BRADD	Direct	VIXUN
N63B	TUSKY	Direct	VIXUN
N65B	ALLEX	Direct	VIXUN
N67B	MIILS	Direct	VIXUN
N75B	BRADD	Direct	YQX
N77B	TUSKY	Direct	YQX
N79B	ALLEX	Direct	YQX
N81B	EBONY	Direct	YQX
N83B	MIILS	Direct	YQX
N85A	CEFOU	Direct	YQX
N91B	TUSKY	Direct	CYMON
N93B	ALLEX	Direct	CYMON
N95B	EBONY	Direct	CYMON
N97B	MIILS	Direct	CYMON
N99A	CEFOU	Direct	CYMON
N105B	TUSKY	Direct	DOTTY
N107B	ALLEX	Direct	DOTTY
N109B	EBONY	Direct	DOTTY
N111B	TOPPS	Direct	DOTTY
N113B	MIILS	Direct	DOTTY
N115B	BAREE	Direct	DOTTY
N121B	ALLEX	Direct	YAY
N123A	EBONY	Direct	YAY
N125A	TOPPS	Direct	YAY
N127A	MIILS	Direct	YAY
N129B	BAREE	Direct	YAY
N135B	EBONY	Direct	REDBY
N137B	TOPPS	Direct	REDBY
N139C	TAFFY	Direct	REDBY
N141B	BAREE	Direct	REDBY
N149B	TOPPS	Direct	STEAM
N151E	MIILS	Direct	STEAM
N153C	TAFFY	Direct	STEAM
N155A	ANCER	Direct	STEAM
N161E	TOPPS	Direct	VALIE
N163E	MIILS	Direct	VALIE
N165E	TAFFY	Direct	VALIE
N167E	QUBIS	Direct	VALIE
N169A	ANCER	Direct	VALIE
N171A	YBG	Direct	VALIE
N173B	TOPPS	Direct	FOXXE
N175C	MIILS	Direct	FOXXE
N177C	TAFFY	Direct	FOXXE
N179C	QUBIS	Direct	FOXXE
N181E	ANCER	Direct	FOXXE
N183C	YBG	Direct	FOXXE
N185A	RJ	Direct	FOXXE
N193E	MIILS	Direct	HO
N195C	TAFFY	Direct	HO
N197C	QUBIS	Direct	HO
N209B	TAFFY	Direct	YDP
N211C	QUBIS	Direct	YDP
N225B	TAFFY	Direct	LOMTA
N227B	QUBIS	Direct	LOMTA

## COMMON PORTION (WESTBOUND)

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility/Fix
N10A	SLATN	Direct	BERGH
N12B	SLATN	J97	LACKS
N14A	JOBOD	Direct	BERGH
N16A	JOBOD	Direct	SAILE
N18C	DOVEY	Direct	SAILE
N36E	CARAC	Direct	VITOL
N38E	CARAC	Direct	WHALE
N40E	CARAC	Direct	KANNI
N42B	CARAC	Direct	BRADD
N44B	CARAC	Direct	TOPPS
N46E	JAROM	LOMPI	WHALE
N48E	JAROM	LOMPI	KANNI
N50E	JAROM	LOMPI	BRADD
N52E	JAROM	LOMPI	TUSKY
N54E	JAROM	LOMPI	TOPPS
N56E	RAFIN	NANSO	VITOL
N58B	RAFIN	NANSO	WHALE
N60B	RAFIN	NANSO	KANNI
N62A	RAFIN	Direct	BRADD
N64C	RAFIN	Direct	TUSKY
N66C	BANCS	Direct	MIILS
N68C	BANCS	Direct	VITOL
N70B	BANCS	Direct	WHALE
N72B	BANCS	Direct	KANNI
N74B	BANCS	Direct	BRADD
N76A	BANCS	Direct	TUSKY
N78A	BANCS	Direct	MIILS
N80B	COLOR	Direct	WHALE
N82B	COLOR	Direct	KANNI
N84B	COLOR	Direct	BRADD
N86B	COLOR	Direct	TUSKY
N88A	COLOR	Direct	MIILS
N94A	YYT	Direct	KANNI
N96A	YYT	Direct	BRADD
N98A	YYT	Direct	TUSKY
N100B	YYT	Direct	ALLEX
N102B	YYT	Direct	MIILS
N112B	VIXUN	Direct	TUSKY
N114C	VIXUN	Direct	ALLEX
N116A	VIXUN	Direct	MIILS
N118A	VIXUN	Direct	MIILS
N124B	YQX	Direct	TUSKY
N126B	YQX	Direct	ALLEX
N128B	YQX	Direct	EBONY
N130C	YQX	Direct	MIILS
N142B	CYMON	Direct	ALLEX
N144B	CYMON	Direct	EBONY
N146B	CYMON	Direct	TOPPS
N148B	CYMON	Direct	MIILS
N160C	DOTTY	Direct	ALLEX
N162B	DOTTY	Direct	TOPPS
N164B	DOTTY	Direct	MIILS
N168B	DOTTY	Direct	YXU
N170E	DOTTY	YRI	COVAN
N180B	YAY	Direct	ALLEX
N184B	YAY	Direct	TOPPS
N186C	YAY	Direct	TOPPS
N188B	YAY	Direct	YRI
N190C	YAY	YRI	COVAN
N200B	REDBY	Direct	ALLEX
N202B	REDBY	Direct	TOPPS
N204B	REDBY	Direct	TAFFY
N206C	REDBY	Direct	YRI
N208F	REDBY	YRI	COVAN
N220B	STEAM	Direct	TOPPS
N224E	STEAM	BOBBS	TAFFY
N228B	STEAM	Direct	YRI

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility/Fix
N230E	STEAM	YRI	COVAN
N240C	VALIE	Direct	TOPPS
N242B	VALIE	Direct	TAFFY
N248C	VALIE	Direct	YBC
N250F	VALIE	YBC YRI	COVAN
N254A	VALIE	ROBBE	MOFAT
N258A	VALIE	ROBBE MOFAT YOW J559	SYR
N260A	VALIE	ROBBE	MT
N264A	FOXXE	Direct	TAFFY
N268B	FOXXE	Direct	QUBIS
N270B	FOXXE	Direct	YBC
N272E	FOXXE	YBC YRI	COVAN
N276A	FOXXE	SPOTE ROBBE	MOFAT
N280A	FOXXE	SPOTE ROBBE MOFAT YOW J559	SYR
N282A	FOXXE	SPOTE	MT
N284B	HO	Direct	TAFFY
N288C	HO	Direct	QUBIS
N292C	HO	Direct	YBC
N294E	HO	YBC YRI	COVAN
N296E	HO	KELVI	SYR*
N302C	HO	SPOTE ROBBE	MOFAT
N306C	HO	SPOTE ROBBE MOFAT YOW J559	SYR
N308E	HO	YWK	MT
N312A	HO	MT YUY	SSM
N322B	YDP	Direct	TAFFY
N326B	YDP	Direct	QUBIS
N328C	YDP	Direct	YBC
N332C	YDP	Direct	COVAN*
N334E	YDP	YBC YRI	COVAN
N338C	YDP	J583 YWK	MOFAT
N344B	YDP	YMX	SYR*
N346A	YDP	BROME NOWAA	MT
N352C	YDP	BROME NOWAA YOW MT J559	SYR
N354C	YDP	J583 YWK MOFAT YOW YUL J559	SYR
N356C	YDP	YKL	ROUND
N358B	YDP	JOVIE HENDY SELBO CANSO	SSM
N362B	YDP	YKL ROUND CANSO	SSM
N372C	LOMTA	Direct	TAFFY
N374C	LOMTA	Direct	QUBIS
N376C	LOMTA	Direct	YBC
N378F	LOMTA	Direct	COVAN
N382H	LOMTA	YBC YRI	COVAN
N386G	LOMTA	YMX	SYR*
N392E	LOMTA	YKL ROBBE	MOFAT
N396C	LOMTA	TEALS	VANSI
N398B	LOMTA	YKL ROBBE MOFAT YOW J559	SYR
N402E	LOMTA	TEALS VANSI STAFFE	SSM
N412B	LAKES	Direct	TAFFY
N414C	LAKES	HINGE TEALS	MOFAT
N424E	LAKES	MCKEE GELLS	MT
N428C	LAKES	MCKEE GELLS MT YOW J559	SYR
N432B	LAKES	HINGE TEALS MOFAT YOW J559	SYR
N434C	LAKES	MCKEE MEMSO GRAMP LORNE	SSM
N436A	LAKES	DUSMA	TRUDY
N464E	LOPVI	KLIPS	MT
N468E	LOPVI	KLIPS MT YOW J559	SYR
N472E	LOPVI	PELSI SOCAN VETRO	SSM
N474E	LOPVI	FASSA GW GRAVO	TRUDY
N484C	RODBO	SEMTO HENDY	MT
N492B	ELSET	COPUR	ROUND
N494C	RODBO	SEMTO HENDY YOW J559	SYR
N496C	RODBO	SEMTO VEPTU PEMLU	SSM
N498C	RODBO	COPUR CHARN DURIL	YQT
N512C	JELCO	Direct	VANSI
N514C	JELCO	VANSI YOW J559	SYR
N516H	JELCO	HELMO YMO JARRO	SSM

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility/Fix
N518C	JELCO	GRAND SEGAN	YQT
N522C	JELCO	SCA JULIETT RIONA	VBI
N528A	FEDDY	GW PELEE XYZ	SSM
* NOTE: Routes through Bagotville (YBG) Military Advisory Areas (CYAs) only available from 2300 UTC (DT2200 UTC) Fri to 1100 UTC (DT 1000 UTC) Mon unless declared active by NOTAM.			

## NON-COMMON PORTION (WESTBOUND)

## VIA ALEX

Inland Navigation Facility/Fix	Non-Common Portion	Destination
ALEX	EMJAY J174 ATR085 radial ATR V308 OTT	ANDREWS
ALEX	ENE BAF J77 PTW J48 MOL FLCN Arrival	ATLANTA
ALEX	ENE NELIE J75 MXE V378 BAL	BALTIMORE
ALEX	SCUPP	BOSTON
ALEX	EMJAY J174	CHARLESTON, SC
ALEX	ENE NELIE J75 CMK J75 GVE LYH Sudsy Arrival	CHARLOTTE
ALEX	ENE BAF J77 SAX J6 LIT BYP	DALLAS/FT. WORTH
ALEX	SEAEJ J79 LfV J174 HTO J121 SIE	DOVER
ALEX	ENE BAF J77 SAX J6 LRP Delro Arrival	DULLES
ALEX	EMJAY J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
ALEX	ENE BAF J77 PTW J48 MOL J22 VUZ JAN AEX Daisetta Arrival	HOUSTON
ALEX	ENE Kennebunk Arrival	KENNEDY
ALEX	SEAEJ J79 LfV J174 HTO J121 DRIFT V312 CYN	MCGUIRE
ALEX	EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
ALEX	HANAA ALB V213 SAX	NEWARK
ALEX	EMJAY J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
ALEX	SEAEJ J79 LfV J174 HTO J121 BRIGS VCN Cedar Lake Arrival	PHILADELPHIA
ALEX	ENE CTR HNK HNK271 radial J190 SLT Grace Arrival	PITTSBURGH
ALEX	EMJAY J174 SWL Argal Arrival	RALEIGH-DURHAM
ALEX	ENE BAF J77 SAX J80 VHP Vandalia Arrival	ST LOUIS
ALEX	ENE NELIE J75 CMK J75 TAY Dades Arrival	TAMPA

## VIA BERGH

Inland Navigation Facility/Fix	Non-Common Portion	Destination
BERGH	L454 OWENZ DRIFT J121 SIE	DOVER
BERGH	L454 J62 RBV RBV289 radial V457 LRP V143 MULRR AML	DULLES
BERGH	L454 OWENZ CAMRN	KENNEDY
BERGH	L454 OWENZ MANTA V276 GAMBY	MCGUIRE
BERGH	L454 OWENZ V139 BRIGS V577 VCN Cedar Lake Arrival	PHILADELPHIA

## VIA BRADD

Inland Navigation Facility/Fix	Non-Common Portion	Destination
BRADD	LFV J174 ATR085 radial ATR V308 OTT	ANDREWS
BRADD	BOS J77 PTW J48 MOL FLCN Arrival	ATLANTA
BRADD	BOS J75 MXE V378 BAL	BALTIMORE
BRADD	SCUPP	BOSTON
BRADD	LFV J174	CHARLESTON, SC
BRADD	BOS J75 CMK J75 GVE LYH Sudsy Arrival	CHARLOTTE
BRADD	BOS J77 SAX J6 LIT BYP	DALLAS/FT. WORTH
BRADD	LFV J174 HTO J121 SIE	DOVER
BRADD	BOS J77 SAX J6 LRP Delro Arrival	DULLES
BRADD	ACK J62 RIFLE J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
BRADD	BOS J77 PTW J48 MOL J22 VUZ JAN AEX Daisetta Arrival	HOUSTON
BRADD	PLYMM Plymouth Arrival	KENNEDY
BRADD	LFV J174 HTO J121 DRIFT V312 CYN	MCGUIRE

## Inland Navigation

Facility/Fix	Non-Common Portion	Destination
BRADD	ACK J62 RIFLE J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
BRADD	BOS BAF Shaff Arrival	NEWARK
BRADD	LFV J150 HTO J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
BRADD	LFV J174 HTO J121 BRIGS VCN Cedar Lake Arrival	PHILADELPHIA
BRADD	BOS CTR HNK HNK271 radial J190 SLT Grace Arrival	PITTSBURGH
BRADD	ACK J62 RIFLE J174 SWL Argal Arrival	RALEIGH-DURHAM
BRADD	BOS J77 SAX J80 VHP Vandalia Arrival	ST. LOUIS
BRADD	BOS J75 CMK J75 TAY Dades Arrival	TAMPA

## VIA COVAN

## Inland Navigation

Facility/Fix	Non-Common Portion	Destination
COVAN	ALB J37 J75 MXE V378 BAL	ANDREWS
COVAN	ALB J6 SAX J77 PTW J48 ODF FLCON Arrival	ATLANTA
COVAN	ALB PWL CMK J75 MXE V378 BAL	BALTIMORE
COVAN	ALB J6 SAX J77 PTW J48 EMI J61 HUBBS J193 WEAVR J121 CHS	CHARLESTON, SC
COVAN	ALB PWL CMK J75 GVE LYH SUDSY Arrival	CHARLOTTE
COVAN	ALB J6 SAX J6 LIT BYP Arrival	DALLAS/FT. WORTH
COVAN	ALB J37 JFK CYN SIE	DOVER
COVAN	ALB J6 LRP DELRO Arrival	DULLES
COVAN	ALB J6 SAX J77 PTW J48 EMI J61 HUBBS J193 WEAVR J121 CHS J79 OMN FISEL Arrival	FT. LAUDERDALE
COVAN	ALB IGN IGN Arrival	KENNEDY
COVAN	ALB DNY LHY V93 LVZ V147 MAZIE	MCGUIRE
COVAN	ALB PWL CMK J75 CAE J51 SAV J103 OMN HILEY Arrival	MIAMI
COVAN	HANAA ALB V213 SAX	NEWARK
COVAN	ALB PWL CMK J75 CAE J75 DUNKN AMG LEESE Arrival	ORLANDO
COVAN	ALB DNY SLATT Arrival	PHILADELPHIA
COVAN	ALB J49 HNK HNK271 radial J190 SLT GRACE Arrival	PITTSBURGH
COVAN	ALB PWL CMK J75 TAY DADES Arrival	TAMPA

## VIA EBONY

## Inland Navigation

Facility/Fix	Non-Common Portion	Destination
EBONY	EMJAY J174 ATR085 radial ATR V308 OTT	ANDREWS
EBONY	ENE BAF J77 PTW J48 MOL FLCON Arrival	ATLANTA
EBONY	ENE NELIE J75 MXE V378 BAL	BALTIMORE
EBONY	SCUPP	BOSTON
EBONY	EMJAY J174	CHARLESTON, SC
EBONY	ENE NELIE J75 CMK J75 GVE LYH Sudsy Arrival	CHARLOTTE
EBONY	ENE BAF J77 SAX J6 LIT BYP	DALLAS/FT. WORTH
EBONY	SEAER J79 LFV J174 HTO J121 SIE	DOVER
EBONY	ENE BAF J77 SAX J6 LRP Delro Arrival	DULLES
EBONY	EMJAY J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
EBONY	ENE BAF J77 PTW J48 MOL J22 VUZ JAN AEX Daisetta Arrival	HOUSTON
EBONY	ENE Kennebunk Arrival	KENNEDY
EBONY	SEAER J79 LFV J174 HTO J121 DRIFT V312 CYN	MCGUIRE
EBONY	EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
EBONY	HANAA ALB V213 SAX	NEWARK
EBONY	EMJAY J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
EBONY	SEAER J79 LFV J174 HTO J121 BRIGS VCN Cedar Lake Arrival	PHILADELPHIA
EBONY	ENE CTR HNK HNK271 radial J190 SLT Grace Arrival	PITTSBURGH
EBONY	EMJAY J174 SWL Argal Arrival	RALEIGH-DURHAM
EBONY	ENE BAF J77 SAX J80 VHP Vandalia Arrival	ST. LOUIS
EBONY	ENE NELIE J75 CMK J75 TAY Dades Arrival	TAMPA

## VIA HANRI

Inland Navigation Facility/Fix	Non-Common Portion	Destination
HANRI	M201 BAHAA AR21 CRANS Fisel Arrival	FT. LAUDERDALE
HANRI	M201 JENKS AR22 JORAY Hiley Arrival	MIAMI
HANRI	M201 BAHAA AR15 HIBAC Cwrlid Arrival	ORLANDO
HANRI	M201 JENKS AR19 AYBID Frway Arrival	PALM BEACH
HANRI	M201 BAHAA AR15 ORL Lzard Arrival	TAMPA

## VIA KANNI

Inland Navigation Facility/Fix	Non-Common Portion	Destination
KANNI	LFV J174 ATR085 radial ATR V308 OTT	ANDREWS
KANNI	BOS J77 PTW J48 MOL FLCON Arrival	ATLANTA
KANNI	BOS J75 MXE V378 BAL	BALTIMORE
KANNI	SCUPP	BOSTON
KANNI	LFV J174	CHARLESTON, SC
KANNI	BOS J75 CMK J75 GVE LYH Sudsy Arrival	CHARLOTTE
KANNI	BOS J77 SAX J6 LIT BYP	DALLAS/FT. WORTH
KANNI	LFV J174 HTO J121 SIE	DOVER
KANNI	BOS J77 SAX J6 LRP Delro Arrival	DULLES
KANNI	ACK J62 RIFLE J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
KANNI	BOS J77 PTW J48 MOL J22 VUZ JAN AEX Daisetta Arrival	HOUSTON
KANNI	PLYMM Plymouth Arrival	KENNEDY
KANNI	LFV J174 HTO J121 DRIFT V312 CYN	MCGUIRE
KANNI	ACK J62 RIFLE J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
KANNI	BOS BAF Shaff Arrival	NEWARK
KANNI	LFV J150 HTO J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
KANNI	LFV J174 HTO J121 BRIGS VCN Cedar Lake Arrival	PHILADELPHIA
KANNI	BOS CTR HNK HNK271 radial J190 SLT Grace Arrival	PITTSBURGH
KANNI	ACK J62 RIFLE J174 SWL Argal Arrival	RALEIGH-DURHAM
KANNI	BOS J77 SAX J80 VHP Vandalia Arrival	ST. LOUIS
KANNI	BOS J75 CMK J75 TAY Dades Arrival	TAMPA

## VIA LACKS

Inland Navigation Facility/Fix	Non-Common Portion	Destination
LACKS	J97 ACK SCUPP	BOSTON

## VIA MILLS

Inland Navigation Facility/Fix	Non-Common Portion	Destination
MILLS	ENE BAF J77 PTW J48 MOL FLCON Arrival	ATLANTA
MILLS	YOW J553 ECK FNT PAITN Arrival	CHICAGO
MILLS	YMX J546 YSO J558 YXU J545 DJB J83 APE Cince Arrival	CINCINNATI
MILLS	YMX J546 YSO J558 YXU J545 DJB J29 PVX J131 LIT BYP	DALLAS/FT. WORTH
MILLS	YMX J546 YSO J597 YQO V464 Spica Arrival	DETROIT
MILLS	YMX J546 YSO J558 YXU J545 DJB J29 PVX J131 LIT J180 DAS Daisetta Arrival	HOUSTON
MILLS	VLV J509 V352 OMBRE Ombre Arrival	MONTREAL/TRUDEAU
MILLS	ATENE CATOG Catog Arrival	MONTREAL/MIRABEL
MILLS	YXI YEE ECK GIJ RBS Vandalia Arrival	ST. LOUIS*
MILLS	YMX J546 V300 YSO J37	TORONTO

\* NOTE:

St. Louis route useable only for aircraft at or above FL350.

## VIA MOFAT

Inland Navigation Facility/Fix	Non-Common Portion	Destination
MOFAT	ALB J37 J75 MXE V378 BAL	ANDREWS
MOFAT	TVC OBK J73 BNA Rome Arrival	ATLANTA
MOFAT	ALB PWL CMK J75 MXE V378 BAL	BALTIMORE
MOFAT	ALB J6 SAX J77 PTW J61 HUBBS J193 WEAVR J121 CHS	CHARLESTON
MOFAT	ALB PWL CMK J75 GVE LYH Sudsy Arrival	CHARLOTTE
MOFAT	SEDOT ASP PAITN Arrival	CHICAGO
MOFAT	YXI J597 YSO J558 YXU J545 DJB J38 APE Cince Arrival	CINCINATTI
MOFAT	TVC BAE J105 RZC FSM BYP	DALLAS/FT. WORTH
MOFAT	SMARE ECK POLAR Polar Arrival	DETROIT
MOFAT	ALB J37 JFK CYN SIE	DOVER
MOFAT	ALB J6 LRP Delro Arrival	DULLES
MOFAT	ALB J6 SAX J77 PTW J48 EMI J61 HUBBS J93 WEAVR J121 CHS J79 OMN Fisel Arrival	FT. LAUDERDALE
MOFAT	TVC OBK J101 LIT J180 DAS Daisetta Arrival	HOUSTON
MOFAT	ALB IGN IGN Arrival	KENNEDY
MOFAT	ALB DNY LHY V93 LVZ V147 MAZIE	MCGUIRE
MOFAT	ALB PWL CMK J75 CAE J51 SAV J103 OMN HILEY Arrival	MIAMI
MOFAT	OBRET J570 YMX Mirabel Arrival	MONTREAL/MIRABEL
MOFAT	OBRET J570 YMX Antag Arrival	MONTREAL/TRUDEAU
MOFAT	ALB PWL CMK J75 CAE DUNKN AMG Leese Arrival	ORLANDO
MOFAT	ALB DNY Slatt Arrival	PHILADELPHIA
MOFAT	ALB J49 HNK HNK271 radial J190 SLT Grace Arrival	PITTSBURGH
MOFAT	TVC OBK J71 RBS Vandalia Arrival	ST. LOUIS
MOFAT	ALB CMK J75 Dades Arrival	TAMPA
MOFAT	YXI J597 V216 YSO JV37	TORONTO

## VIA MT

Inland Navigation Facility/Fix	Non-Common Portion	Destination
MT	ALB J37 J75 MXE V378 BAL	ANDREWS
MT	TVC OBK J73 BNA Rome Arrival	ATLANTA
MT	ALB PWL CMK J75 MXE V378 BAL	BALTIMORE
MT	ALB J6 SAX J77 PTW J48 EMI J61 HUBBS J193 WEAVR J121 CHS	CHARLESTON
MT	ALB PWL CMK J75 GVE LYH Sudsy Arrival	CHARLOTTE
MT	SSM PAITN Arrival	CHICAGO
MT	YXI J597 YSO YXU J545 DJB J83 APE Cince Arrival	CINCINATTI
MT	TVC BAE J105 RZC FSM BYP	DALLAS/FT. WORTH
MT	SEDOT ECK POLAR POLAR ARRIVAL	DETROIT
MT	ALB J37 JFK CYN SIE	DOVER
MT	ALB J6 LRP Delro Arrival	DULLES
MT	ALB J6 SAX J77 PTW J48 EMI J61 HUBBS J93 WEAVR J121 CHS J79 OMN Fisel Arrival	FT. LAUDERDALE
MT	TVC OBK J101 LIT J180 DAS Daisetta Arrival	HOUSTON
MT	ALB IGN IGN Arrival	KENNEDY
MT	ALB DNY LHY V93 LVZ V147 MAZIE	MCGUIRE
MT	ALB PWL CMK J75 CAE J51 SAV J103 OMN Hiley Arrival	MIAMI
MT	J570 YMX Mirabel Arrival	MONTREAL/MIRABEL
MT	J570 YMX Antag Arrival	MONTREAL/TRUDEAU
MT	ALB PWL CMK J75 CAE J75 DUNKN AMG Leese Arrival	ORLANDO
MT	ALB DNY Slatt Arrival	PHILADELPHIA
MT	ALB J49 HNK HNK271 radial J190 SLT Grace Arrival	PITTSBURGH
MT	TVC OBK J71 RBS Vandalia Arrival	ST. LOUIS
MT	ALB CMK J75 TAY Dades Arrival	TAMPA
MT	YXI J597/V216 YSO V37	TORONTO



## VIA NUCAR

Inland Navigation Facility/Fix	Non-Common Portion	Destination
NUCAR	NEPTA J58 AEX Scurry Arrival	DALLAS/FT WORTH
NUCAR	CRANS Fisel Arrival	FT. LAUDERDALE
NUCAR	JORAY Hiley Arrival	MIAMI
NUCAR	BAIRN Goofy Arrival	ORLANDO
NUCAR	BRDGE Bridge Arrival	TAMPA
NUCAR	AYBID Frway Arrival	PALM BEACH

## VIA QUBIS

Inland Navigation Facility/Fix	Non-Common Portion	Destination
QUBIS	EMJAY J174 ATR085 radial ATR V308 OTT	ANDREWS
QUBIS	ALB J6 SAX J77 PTW J48 MOL FLCON Arrival	ATLANTA
QUBIS	ENE NELIE J75 MXE V378 BAL	BALTIMORE
QUBIS	SCUPP	BOSTON
QUBIS	EMJAY J174	CHARLESTON, SC
QUBIS	ENE NELIE J75 GVE LYH Sudsy Arrival	CHARLOTTE
QUBIS	ALB J6 LIT BYP	DALLAS/FT. WORTH
QUBIS	ALB J6 LRP Delro Arrival	DULLES
QUBIS	EMJAY J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
QUBIS	ENE BAF J77 PTW J48 MOL J22 VUZ JAN AEX Daisetta Arrival	HOUSTON
QUBIS	EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
QUBIS	EMJAY J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
QUBIS	ALB J49 HNK HNK271 radial J190 GRACE Grace Arrival	PITTSBURGH
QUBIS	EMJAY J174 SWL Argal Arrival	RALEIGH-DURHAM
QUBIS	ENE NELIE J75 CMK J75 TAY Dades Arrival	TAMPA

## VIA ROUND

Inland Navigation Facility/Fix	Non-Common Portion	Destination
ROUND	TVC OBK J73 BNA Rome Arrival	ATLANTA
ROUND	SSM PAITN Arrival	CHICAGO
ROUND	YXI J597 YSO J558 YXU J545 DJB J83 APE Cince Arrival	CINCINNATI
ROUND	TVC BAE J105 RZC FSM BYP	DALLAS/FT. WORTH
ROUND	YVO SEDOT ECK POLAR Polar Arrival	DETROIT
ROUND	TVC OBK J101 LIT J180 DAS Daisetta Arrival	HOUSTON
ROUND	TVC OBK J71 RBS Vandalia Arrival	ST. LOUIS
ROUND	YXI J597 V216 YSO V37	TORONTO

## VIA SAILE

Inland Navigation Facility/Fix	Non-Common Portion	Destination
SAILE	ACK HTO J174 ATR085 radial ATR V308 OTT	ANDREWS
SAILE	ACK HTO RBV V230 J48 MOL FLCON Arrival	ATLANTA
SAILE	SCUPP	BOSTON
SAILE	ACK HTO J174	CHARLESTON, SC
SAILE	ACK HTO J121 SIE	DOVER
SAILE	ACK J62 RBV RBV289 radial V457 LRP Delro Arrival	DULLES
SAILE	ACK J62 RIFLE J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
SAILE	PLYMM Plymouth Arrival	KENNEDY
SAILE	ACK HTO J121 DRIFT V312 CYN	MCGUIRE
SAILE	ACK J62 RIFLE J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
SAILE	BOS BAF Shaff Arrival	NEWARK
SAILE	ACK HTO J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
SAILE	ACK HTO J121 BRIGS VCN Cedar Lake Arrival	PHILADELPHIA
SAILE	ACK J62 RIFLE J174 SWL Argal Arrival	RALEIGH-DURHAM
SAILE	NELIE J75 CMK J75 TAY Dades Arrival	TAMPA

## VIA SSM

Inland Navigation Facility/Fix	Non-Common Portion	Destination
SSM	GRB J101 BAE J89 OBK J73 BNA Rome Arrival	ATLANTA
SSM	PAITN Arrival	CHICAGO
SSM	J101 BAE J105 RZC FSM BYP	DALLAS/FT. WORTH
SSM	GEP J114	DENVER
SSM	STL J101 LIT J180 DAS Daisetta Arrival	HOUSTON
SSM	EAU Eau Arrival	MINNEAPOLIS/ ST. PAUL
SSM	J548 TVC OBK J71 RBS Vandalia Arrival	ST. LOUIS

## VIA SYR

Inland Navigation Facility/Fix	Non-Common Portion	Destination
SYR	FQM HAR V265 KOLBY PSB149 radial SHILO V93 BAL	ANDREWS
SYR	J59 PSB J78 HVQ J145 ODF FLCON Arrival	ATLANTA
SYR	FQM RAY V170 V499 TRISH	BALTIMORE
SYR	FQM HAR EMI J61 HUBBS J193 WEAVR J121 CHS	CHARLESTON, SC
SYR	J59 PSB J78 HVQ Johns Arrival	CHARLOTTE
SYR	J29 DJB J83 APE Cince Arrival	CINCINNATI
SYR	J29 PXV J131 LIT BYP	DALLAS/FT. WORTH
SYR	HAR LRP V210 SPERY	DOVER
SYR	J59 PSB PSB151 SEG201 HYPER Delro	DULLES
SYR	J29 PXV J131 LIT J180 DAS Daisetta Arrival	HOUSTON
SYR	IGN KINGSTON Arrival	KENNEDY
SYR	LVZ V147 MAZIE	MCGUIRE
SYR	HNK V167 HELON V213 SAX	NEWARK
SYR	CFB SLATT Arrival	PHILADELPHIA
SYR	J29 JHW YNG CUTTA	PITTSBURGH
SYR	J29 ROD VHP Vandalia Arrival	ST. LOUIS

## VIA TAFFY

Inland Navigation Facility/Fix	Non-Common Portion	Destination
TAFFY	EMJAY J174 ATR085 radial ATR V308 OTT	ANDREWS
TAFFY	ALB J6 SAX J77 PTW J48 MOL FLCON Arrival	ATLANTA
TAFFY	PQI J55 ENE NELIE J75 MXE V378 BAL	BALTIMORE
TAFFY	SCUPP	BOSTON
TAFFY	EMJAY J174	CHARLESTON, SC
TAFFY	ENE NELIE J75 CMK J75 GVE LYH Sudsy Arrival	CHARLOTTE
TAFFY	ALB J6 SAX J6 LIT BYP	DALLAS/FT.WORTH
TAFFY	SEAEAR J79 LFV J174 HTO J121 SIE	DOVER
TAFFY	ALB J6 LRP Delro Arrival	DULLES
TAFFY	EMJAY J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
TAFFY	ENE BAF J77 PTW J48 MOL J22 VUZ JAN AEX Daisetta Arrival	HOUSTON
TAFFY	ENE Kennebunk Arrival	KENNEDY
TAFFY	SEAEAR J79 LFV J174 HTO J121 DRIFT V312 CYN	MCGUIRE
TAFFY	EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
TAFFY	HANAA ALB V123 SAX	NEWARK
TAFFY	EMJAY J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
TAFFY	SEAEAR J79 LFV J174 HTO J121 BRIGS VCN Cedar Lake Arrival	PHILADELPHIA
TAFFY	ENE CTR HNK HNK271 radial J190 SLT Grace Arrival	PITTSBURGH
TAFFY	EMJAY J174 SWL Argal Arrival	RALEIGH-DURHAM
TAFFY	ENE NELIE J75 CMK J75 TAY Dades Arrival	TAMPA

## VIA TOPPS

Inland Navigation Facility/Fix	Non-Common Portion	Destination
TOPPS	EMJAY J174 ATR085 radial ATR V308 OTT	ANDREWS
TOPPS	ENE BAF J77 PTW J48 MOL FLCON Arrival	ATLANTA
TOPPS	ENE NELIE J75 MXE V378 BAL	BALTIMORE
TOPPS	SCUPP	BOSTON
TOPPS	EMJAY J174	CHARLESTON, SC
TOPPS	ENE NELIE J75 CMK J75 GVE LYH Sudsy Arrival	CHARLOTTE
TOPPS	YOW J553 ECK FNT PAITN Arrival	CHICAGO
TOPPS	YOW J546 YSO J558 YXU J545 DJB J83 APE Cince Arrival	CINCINNATI
TOPPS	ENE BAF J77 SAX J6 LIT BYP	DALLAS/FT. WORTH
TOPPS	YOW J546 YSO J597 YQO V464 Spica Arrival	DETROIT
TOPPS	SEAER J79 LFV J174 HTO J121 SIE	DOVER
TOPPS	ENE BAF J77 SAX J6 LRP Delro Arrival	DULLES
TOPPS	EMJAY J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
TOPPS	ENE BAF J77 PTW J48 MOL J22 VUZ JAN AEX Daisetta Arrival	HOUSTON
TOPPS	ENE Kennebunk Arrival	KENNEDY
TOPPS	SEAER J79 LFV J174 HTO J121 DRIFT V312 CYN	MCGUIRE
TOPPS	EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
TOPPS	HANAA ALB V213 SAX	NEWARK
TOPPS	EMJAY J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
TOPPS	SEAER J79 LFV J174 HTO J121 BRIGS VCN Cedar Lake Arrival	PHILADELPHIA
TOPPS	ENE CTR HNK HNK271 radial J190 SLT Grace Arrival	PITTSBURGH
TOPPS	EMJAY J174 SWL Argal Arrival	RALEIGH-DURHAM
TOPPS	ENE BAF J77 SAX J80 VHP Vandalia Arrival	ST. LOUIS
TOPPS	ENE NELIE J75 CMK J75 TAY Dades Arrival	TAMPA
TOPPS	OMBRE Ombre Arrival	MONTREAL/TRUDEAU
TOPPS	VLV J565 V363 Catog Arrival	MONTREAL/MIRABEL
TOPPS	YOW J546 V300 YSO V37	TORONTO

## VIA TUSKY

Inland Navigation Facility/Fix	Non-Common Portion	Destination
TUSKY	EMJAY J174 ATR085 radial ATR V308 OTT	ANDREWS
TUSKY	BOS J77 PTW J48 MOL FLCON Arrival	ATLANTA
TUSKY	BOS J75 MXE V378 BAL	BALTIMORE
TUSKY	SCUPP	BOSTON
TUSKY	EMJAY J174	CHARLESTON, SC
TUSKY	BOS J75 CMK J75 GVE LYH Sudsy Arrival	CHARLOTTE
TUSKY	BOS J77 SAX J6 LIT BYP	DALLAS/FT. WORTH
TUSKY	LFV J174 HTO J121 SIE	DOVER
TUSKY	BOS J77 SAX J6 LRP Delro Arrival	DULLES
TUSKY	EMJAY J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
TUSKY	BOS J77 PTW J48 MOL J22 VUZ JAN AEX Daisetta Arrival	HOUSTON
TUSKY	PLYMM Plymouth Arrival	KENNEDY
TUSKY	LFV J174 HTO J121 DRIFT V312 CYN	MCGUIRE
TUSKY	EMJAY J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
TUSKY	BOS BAF Shaff Arrival	NEWARK
TUSKY	EMJAY J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
TUSKY	LFV J174 HTO J121 BRIGS VCN Cedar Lake Arrival	PHILADELPHIA
TUSKY	BOS CTR HNK HNK271 radial J190 SLT Grace Arrival	PITTSBURGH
TUSKY	EMJAY J174 SWL Argal Arrival	RALEIGH-DURHAM
TUSKY	BOS J77 SAX J80 VHP Vandalia Arrival	ST. LOUIS
TUSKY	BOS J75 CMK J75 TAY Dades Arrival	TAMPA

## VIA VANSI

Inland Navigation Facility/Fix	Non-Common Portion	Destination
VANSI	TVC OBK J73 BNA Rome Arrival	ATLANTA
VANSI	SSM PAITN Arrival	CHICAGO
VANSI	YXI J597 YSO J558 YXU J545 DJB J83 APE Cince Arrival	CINCINATTI
VANSI	TVC BAE J105 RZC FSM BYP	DALLAS/FT. WORTH
VANSI	YVO SEDOT ECK POLAR Polar Arrival	DETROIT
VANSI	TVC OBK J101 LIT J180 DAS Daisetta Arrival	HOUSTON
VANSI	TVC OBX J71 RBS Vandalia Arrival	ST LOUIS
VANSI	YXI J597 V216 YSO V37	TORONTO

## VIA VITOL

Inland Navigation Facility/Fix	Non-Common Portion	Destination
VITOL	ACK HTO J174 ATR085 radial ATR V308 OTT	ANDREWS
VITOL	ACK HTO RBV J230 J48 MOL FLCON Arrival	ATLANTA
VITOL	SCUPP	BOSTON
VITOL	ACK HTO J174	CHARLESTON, SC
VITOL	ACK HTO J121 SIE	DOVER
VITOL	ACK J62 RBV RBV289 radial V457 LRP Delro Arrival	DULLES
VITOL	ACK J62 RIFLE J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
VITOL	PLYMM Plymouth Arrival	KENNEDY
VITOL	ACK HTO J121 DRIFT V312 CYN	MCGUIRE
VITOL	ACK J62 RIFLE J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
VITOL	BOS BAF Shaff Arrival	NEWARK
VITOL	ACK HTO J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
VITOL	ACK HTO J121 BRIGS VCN Cedar Lake Arrival	PHILADELPHIA
VITOL	ACK J62 RIFLE J174 SWL Argal Arrival	RALEIGH-DURHAM
VITOL	NELIE J75 CMK J75 TAY Dades Arrival	TAMPA

## VIA WHALE

Inland Navigation Facility/Fix	Non-Common Portion	Destination
WHALE	LFV J174 ATR085 radial ATR V308 OTT	ANDREWS
WHALE	BOS J77 PTW J48 MOL FLCON Arrival	ATLANTA
WHALE	BOS J75 MXE V378 BAL	BALTIMORE
WHALE	SCUPP	BOSTON
WHALE	LFV J174	CHARLESTON, SC
WHALE	BOS J75 CMK J75 GVE LYH Sudsy Arrival	CHARLOTTE
WHALE	BOS J77 SAX J6 LIT BYP	DALLAS/FT. WORTH
WHALE	LFV J174 HTO J121 SIE	DOVER
WHALE	BOS J77 SAX J6 LRP V143 Delro Arrival	DULLES
WHALE	ACK J62 RIFLE J174 SWL CEBEE WETRO ILM AR21 CRANS Fisel Arrival	FT. LAUDERDALE
WHALE	BOS J77 PTW J48 MOL J22 VUZ JAN AEX Daisetta Arrival	HOUSTON
WHALE	PLYMM Plymouth Arrival	KENNEDY
WHALE	LFV J174 HTO J121 DRIFT V312 CYN	MCGUIRE
WHALE	LFV J174 SWL CEBEE WETRO DIW AR22 JORAY Hiley Arrival	MIAMI
WHALE	BOS BAF Shaff Arrival	NEWARK
WHALE	LFV J150 HTO J174 ORF J121 CHS J79 OMN Bitho Arrival	ORLANDO
WHALE	LFV J174 HTO J121 BRIGS VCN Cedar Lake Arrival	PHILADELPHIA
WHALE	BOS CTR HNK HNK271 radial J190 SLT Grace Arrival	PITTSBURGH
WHALE	ACK J62 RIFLE J174 SWL Argal Arrival	RALEIGH-DURHAM
WHALE	BOS J77 SAX J80 VHP Vandalia Arriva	ST. LOUIS
WHALE	BOS J75 CMK J75 TAY Dades Arrival	TAMPA

## VIA YBC

Inland Navigation Facility/Fix	Non-Common Portion	Destination
YBC	VBS POLTY YSO YXU J545 DJB J83 APE J186 SOT FLCON Arrival	ATLANTA
YBC	VBS SEDOT ECK FNT PAITN Arrival	CHICAGO
YBC	VBS POLTY YSO YXU J545 DJB J83 APE Cince Arrival	CINCINNATI
YBC	VBS POLTY YSO YXU J545 DJB J29 PXV J131 LIT BYP	DALLAS/FT WORTH
YBC	VBS YXI YVV ECK POLAR Polar Arrival	DETROIT
YBC	VBS POLTY YSO YXU J545 DJB J29 PXV J131 LIT J180 DAS Daisetta Arrival	HOUSTON
YBC	BLAKK Catog Arrival	MONTREAL/MIRABEL
YBC	BLAKK OMBRE Ombre Arrival	MONTREAL/TRUDEAU
YBC	VBS YXI YEE ECK GIJ RBS Vandalia Arrival	ST. LOUIS
YBC	YMX J546 V300 YSO V37	TORONTO

## VIA YRI

Inland Navigation Facility/Fix	Non-Common Portion	Destination
YRI	POLTY YSO YXU J545 DJB J83 APE J186 SOT FLCON Arrival	ATLANTA
YRI	SEDOT ASP PAITN Arrival	CHICAGO
YRI	POLTY YSO YXU J545 DJB J83 APE Cince Arrival	CINCINNATI
YRI	POLTY YSO YXU J545 DJB J29 PXV J131 LIT BYP	DALLAS/FT WORTH
YRI	YXI YVV ECK POLAR Polar Arrival	DETROIT
YRI	POLTY YSO YXU J545 DJB J29 PXV J131 LIT J180 DAS Daisetta Arrival	HOUSTON
YRI	BLAKK Catog Arrival	MONTREAL/MIRABEL
YRI	MUROP OMBRE Ombre Arrival	MONTREAL/TRUDEAU
YRI	YXI YEE ECK GIJ RBS Vandalia Arrival	ST. LOUIS
YRI	YMX J546 V300 YSO V37	TORONTO

## VIA ZQA

Inland Navigation Facility/Fix	Non-Common Portion	Destination
ZQA	BR22V DEKAL	FT LAUDERDALE
ZQA	BR49V FOWEE Fowee Arrival	MIAMI
ZQA	BR54V	PALM BEACH

### RNAV Routing Pitch and Catch Points

The purpose of this section of the Special High Altitude Routes is to present user routing options for flight within the initial HAR Phase I expansion airspace. Users are able to fly user-preferred routes, referred to as non-restrictive routing (NRR), between specific fixes described by **pitch** (entry into) and **catch** (exit out of) fixes in the HAR airspace. Pitch points indicate an end of departure procedures, preferred IFR routings, or other established routing programs where a flight can begin a segment of NRR. The catch point indicates where a flight ends a segment of NRR and joins published arrival procedures, preferred IFR routing, or other established routing programs.

The HAR Phase I expansion airspace is defined as that airspace at and above FL 350 in fourteen of the western and southern Air Route Traffic Control Centers (ARTCCs). The airspace includes Minneapolis (ZMP), Chicago (ZAU), Kansas City (ZKC), Denver (ZDV), Salt Lake City (ZLC), Oakland (ZOA), Seattle Centers (ZSE), Los Angeles (ZLA), Albuquerque (ZAB), Fort Worth (ZFW), Memphis (ZME), and Houston (ZHU). Jacksonville (ZJX) and Miami (ZMA) are included for east-west routes only.

To develop a flight plan, select pitch and catch points based upon your desired route across the Phase I airspace. Filing requirements to pitch points, and from catch points, remain unchanged from current procedures. For the portion of the route between the pitch and catch points, non-restrictive routing is permitted.

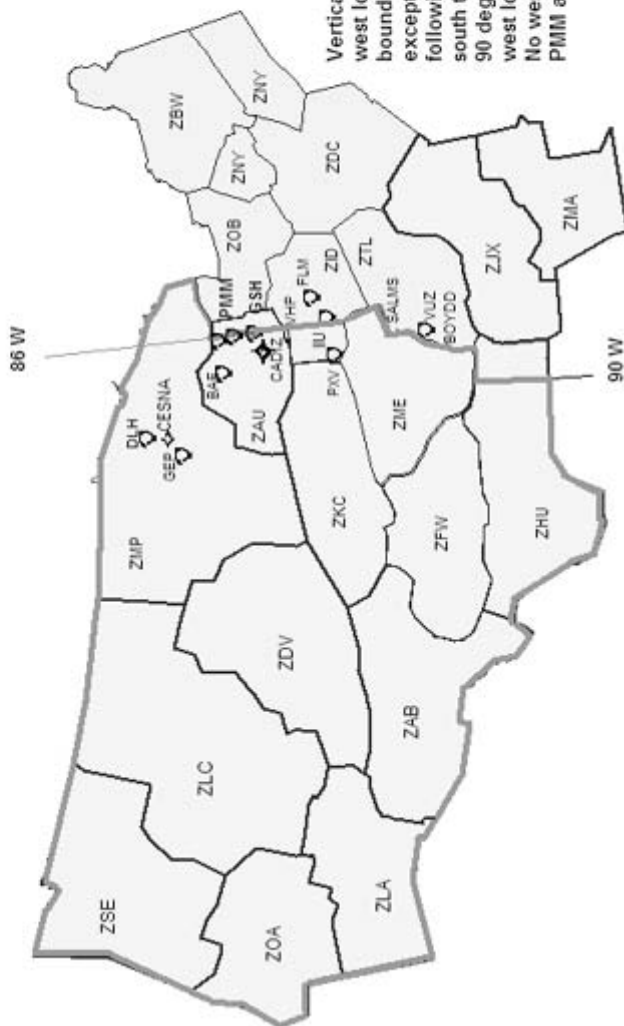
Where pitch points for a specific airport are not identified, aircraft should file an appropriate departure procedure (DP), or any other user preferred routing prior to the NRR portion of their routing. Where catch points for a specific airport are not identified aircraft should file, after the NRR portion of their routing, an appropriate arrival procedure or other user preferred routing to their destination.

Additionally, information concerning the location and schedule of Special Use Airspace (SUA) and Air Traffic Control Assigned Airspace (ATCAA) can be found on the Web Site: <http://sua.faa.gov/sua/Welcome.do>. ATCAA refers to airspace in the high altitude structure supporting military and other special operations. Users are encouraged to file around these areas when they are scheduled to be active, thereby avoiding unplanned reroutes around them.

In conjunction with the HAR program RNAV routes have been established to provide for a systematic flow of air traffic in specific portions of the enroute flight environment. The designator for these RNAV routes begin with the letter Q, for example, Q-501. Where those routes aid in the efficient orderly management of air traffic they will be published as preferred IFR routes.

## High Altitude Redesign (HAR) Phase One Expansion Airspace

Except as noted, flights entering HAR expansion airspace may pitch at the airspace boundary, at the vertical pitch line, or at the fixes listed on the following page.



Vertical Pitch Line: 86 degrees west longitude from the ZMP/ZAU boundary to the ZME/ZID boundary, except between PMM and GSH, then following the ZME east boundary south to the ZHU boundary. Then west to 90 degrees west longitude, the 90 degrees west longitude to the ZHU southern boundary. No westbound traffic between PMM and GSH.

## HAR Special High Altitude Pitch (entry) Points for Nonrestrictive Routing for Airports Located Outside HAR Phase I Expansion Airspace

Westbound traffic originating outside of HAR airspace entering ZMP, ZAU, ZKC and ZME can begin non-restrictive routing over any of the following pitch points (listed from north to south):

DLH, CESNA, GEP, BAE, MKG, GRR, PMM, GSH, CADIZ, FWA, VHP, FLM, IIU, PXV, SGF, RZC, BNA, SALMS, VUZ, BOYDD, MIE.

Traffic originating outside of HAR airspace may also begin Nonrestrictive Routing upon crossing the pitch line depicted on the associated graphic.

## HAR Special High Altitude Pitch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists pitch points for airports within the HAR Phase I expansion airspace.

Albuquerque	ABQ, GUP, HANOS or ZUN
Austin	ABI, FUZ, JCT, MQP, NAVYS, SJT or TNV
Boca Raton, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Burbank includes Santa Monica and Van Nuys	GMN, MARKS or DAG LAS or HEC EED or PMD BLH
Chicago Terminal Area	IOW, PLL275065, MZV or BAE
Dallas/Fort Worth Terminal Area	ABI, LBB, GTH, CDS, MRMAC, IRW, TUL, MLC, TXK ELD, SWB or Aircraft destined the Chicago terminal area Except MDW EAKER MIDEE BDF BRADFORD-STAR or MLC J105 SGF BDF BRADFORD-STAR
Denver Terminal Area	PUB, DVC, DBL, RLG, EKR, LAR, MBW, CYS, BFF, HANKI, NATTI, ASHBY, BELKE, CABET, WEEDS, OR BINKE
Fort Lauderdale (or) Fort Lauderdale Executive	THNDR KPASA Q118 LENIE or THNDR KPASA Q116 CEEYA or THNDR KPASA Q110 FEONA or THNDR SMELZ Q106 GADAY or THNDR SMELZ Q106 BULZI
Houston Bush	LIT, EMG, MLC, JCT or Aircraft destined Atlanta Terminal Area LCH Q24 PAYTN HONIE-RNAV STAR or Aircraft joining J37 to the northeast, BPT GUSTI Q22 CATLN or Aircraft joining J42 to the northeast, ELD Q32 J42



Houston Hobby	LIT, EMG, MLC, JCT, or Aircraft joining J42 to the northeast, ELD Q32 J42
Jacksonville, FL	TAY
Kansas City Terminal Area	TIFT0, CATTS or KENTN
Los Angeles, includes Ontario	GMN, RZS or DAG LAS or TRM EED or TRM PKE
Las Vegas	DOBNE, MOSBI, NICLE, TRALR or ZELOT
Long Beach includes Orange County	GMN SNS, EHF, LANDO or TRM PKE or TRM EED
Memphis	BNA, HAAWK, SALMS or SQS
Miami Terminal Area	WINCO KPASA Q118 LENIE or WINCO KPASA Q116 CEEYA or WINCO KPASA Q110 FEONA or WINCO SMELZ Q106 GADAY or WINCO SMELZ Q106 BULZI
Milwaukee	GREAS
Minneapolis Terminal Area*	ONL, ABR, FAR, OBH, OVR, FOD
New Orleans Terminal Area	AEX, MEI, SQS, KAPLN
Orlando Terminal Area	WEBBS BRUTS Q118 LENIE or WEBBS GULFR Q116 CEEYA or WEBBS BULZI Q106 GADAY or WEBBS FEONA or WEBBS BULZI
Palm Beach, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Palm Springs	TRM JOTNU BLD or TRM EED or TRM PKE
Phoenix	CHILY, CIE, CULTS, RSK, DOVEE, GCN, MESSI, SJN, DRYHT or MOHAK
Portland, OR	PDT, TIMEE

Salt Lake City	HVE, DTA, MLF, BCE, OAL, MTU, BVL, OCS, TWF, DBS, BPI or TCH J56 CHE or TCH J173 EKR
Saint Louis	VIH, MAP, MYERZ, MCM or HLV MCI
San Antonio Terminal Area	FUZ, SJT, MQP, ABI or Aircraft North of LFK, LFK or Aircraft South of HUB, ELA or Aircraft South of LFK and North of HUB LCH
San Diego	TRM EED or TRM PKE or TRM JOTNU BLD
San Francisco Bay Area Oakland San Jose	GALLI, INSLO, HAROL JSICA GALLI, INSLO, HAROL JSICA GALLI or INSLO
Seattle	BLUIT
Southwest Florida Airports (RSW/FMY)	JOCKS KPASA Q118 LENIE or JOCKS KPASA Q116 CEEYA or JOCKS KPASA Q110 FEONA or JOCKS SMELZ Q106 GADAY or JOCKS SMELZ Q106 BULZI
Tampa Terminal Area	FEONA, BULZI or BRUTS Q118 LENIE or GULFR Q116 CEEYA or BULZI Q106 GADAY

\*MSP area departures with destinations east of 93 degrees west longitude via preferred IFR routing.

### **Catch Points for Airports Located Outside HAR Phase I Expansion Airspace**

This section lists exit points for aircraft destined to specific destinations which are outside the HAR Phase I airspace.

Atlanta Terminal Area	Aircraft through ZME airspace from ZKC airspace east of FAM, Pless Q19 BNA or Aircraft through ZME airspace from ZKC airspace west of FAM, ARG Q26 DEVAC or MEM or Aircraft through ZME airspace from ZID airspace west of a line from VHP to BWG, BNA or Aircraft through ZME airspace from ZID airspace east of a line from VHP to BWG, BWG or Aircraft through ZME airspace from ZFW airspace, MEM or MEI HONIE (RNAV)–STAR or PATYN HONIE (RNAV)–STAR
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Baltimore–Washington*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA or VUZ
Boston*	GEP, CRL, ECK, IIU, BNA or VUZ
Buffalo*	GEP, CRL
Hartford Bradley*	GEP, CRL
Canton–Akron*	GIJ, VHP, GEP
Charlotte	BNA, VUZ
Cincinnati Terminal Area	BNA, PXV or Aircraft north of SLC, JOT or Aircraft over or south of SLC, ENL or SLC or SFO departures, ENL, JOT
Cleveland Terminal Area*	OBK
Detroit Terminal Area	BAE MKG POLAR–STAR or VHP FWA MIZAR–STAR
Detroit Young	VHP FWA or LAN SPRTN–STAR
Indianapolis Terminal Area	BIB, SPI, JOT
Louisville	ENL, MEM
Newark*	GEP, VHP, FLM, IIU, BNA, VUZ or IOW GIJ J554 CRL J584 SLT FQM
New York Kennedy*	GEP, VHP, FLM, IIU, BNA, VUZ or DBQ J94 PMM J70 LVZ LENDY–STAR
New York LaGuardia*	GIJ, GEP, VHP, BAE, FLM, IIU, BNA, VUZ
Philadelphia Terminal Area*	GIJ, GEP, VHP, BAE, WHETT, BNA, VUZ
Pittsburgh Terminal Area*	VHP, GIJ, BAE, GEP
Pontiac	LFD, LAN, VHP, FWA, GEP
Providence	JHW, HEMDI, CESNA, GEP, GRB, TVC, ASP, VHP, IIU, BNA, VUZ
Raleigh–Durham	FLM, IIU, BNA, VUZ
Toronto Terminal Area	ECK, SVM, SSM, GEP
Teterboro*	GEP, VHP, CRL, BNA, VUZ
Washington Dulles/National*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA, VUZ
White Plains*	GEP, VHP, CRL, FLM, IIU, BNA, VUZ
Willow Run*	LAN, LFD, VHP, FWA, GEP

\*Eastbound aircraft over flying ZMP center airspace entering Toronto center airspace, file direct SSM or via J63, J522, Q505, Q504, Q502, Q501

or

Entering ZAU or ZOB airspace from north of DPR J16 MCW, GEP

or

Entering ZAU or ZOB airspace from or south of DPR J16 MCW, CRL.

**Catch Points for Airports Located Within (below) HAR Phase I Expansion Airspace**

This section lists exit points for aircraft destined to airports which are below HAR Phase I airspace.

Albuquerque Terminal Area	CURLY CURLY-STAR or ESPAN FRIHO-STAR or LAVAN LAVAN-STAR or FTI FRIHO-STAR or MIERA MIERA-STAR
Austin Terminal Area	Aircraft west of a north-south line at LFK, BLEWE or Aircraft east of a north-south line at LFK, IDU or LLO
Boca Raton, FL	CEW DEFUN Q112 INPIN SHDAY (RNAV)-STAR Aircraft through ZHU remain south of ZME and ZTL airspace or DEFUN Q112 INPIN SHDAY (RNAV)-STAR Aircraft through ZHU remain south of ZME and ZTL airspace or SZW INPIN SHDAY (RNAV)-STAR
Chicago Midway	CVA MOTIF-STAR or PIA MOTIF-STAR or DBQ CVA MOTIF-STAR or LMN MOTIF-STAR
Chicago O'Hare Terminal Area	GEP DLL MSN JVL JANESVILLE-STAR or TVC PULLMAN-STAR or FOD DBQ JVL JANESVILLE-STAR or MCW JANESVILLE-STAR or GCK IRK BRADFORD-STAR
Dallas/Fort Worth Terminal Area	IRW, LOSZY, FSM, LIT, SQS, MLU, AEX, JUMBO, TQA, TURKI, HEATR Aircraft through ZME airspace from north and west of PXV, RZC, Q23 FSM or Aircraft through ZME airspace from east of PXV, PXV Q25 MEEOW or Aircraft through ZME airspace from J6 down to, but not including J52, LIT, SQS or Aircraft through ZME airspace from J52 and south of J52, SQS

Denver Terminal Area	OATHE DANDD-STAR
	or
	HGO QUAIL-STAR
	or
	LOPEC-STAR
	or
	ALS LARKS-STAR
	or
	HBU POWDR-STAR
	or
	EKR TOMSN-STAR
	or
	CHE TOMSN-STAR
	or
	BFF LANDR-STAR
	or
	LBF SAYGE-STAR
	or
	HCT SAYGE-STAR
	or
	RSK LARKS-STAR
	or
	LAA QUAIL-STAR
	or
	GCK J154 RYLIE DANDD-STAR
	or
	OCS J154 ALPOE RAMMS-STAR
	or
	YANKI J114 SNY LANDR-STAR
	or
	Aircraft filed BIL or east, MBW RAMMS-STAR
Ft Lauderdale or Ft Lauderdale Executive	CEW DEFUN Q104 PIE SWAGS (RNAV)-STAR
	Aircraft through ZHU airspace remain south ZME and ZTL airspace
	or
Houston Bush	SZW HEVVN Q104 PIE SWAGS (RNAV)-STAR
	CRP, CVE, LLO, LUKIY, SAT
	or
	Aircraft south and east of LLA, LLA
	or
	MISLE Q40 AEX
	or
	Aircraft north and east of SJI, SJI
	or
	Aircraft east of PXV, PXV Q31 DHART SWB
	or
	Aircraft north and west of PXV, PROWL Q33 DHART SWB
Houston Hobby	CRP, ELLVR, SAT, SWB
	or
	Aircraft south and east of GIRLY, GIRLY
	or
	Aircraft north and east of SJI, SJI
	or
	BESOM Q38 ROKIT ROKIT-STAR
	or
	Aircraft east of PXV, PXV Q29 HARES SWB
	or
	Aircraft north and west of PXV, PROWL Q33 DHART SWB
Jacksonville	GADAY ZOOSS TAY
	Aircraft through ZHU airspace remain south of ZME and ZTL airspace
	or
	ZOOSS TAY

John Wayne–Orange County	HEC, PGS, BLD or Aircraft south of TBC from ZAB airspace, HIPPI
Kansas City Terminal Area	LMN BRAYMER–STAR or PWE ROBINSON–STAR or EMP JHAWK–STAR
Las Vegas	DILCO, LIDAT, IGM or Aircraft over PGA or north of PGA KSINO or Aircraft south of PGA PGS LYNBY
Los Angeles Terminal Area	Aircraft North of TBC, HEC, PGS or Aircraft South of TBC from ZAB airspace, HIPPI, MESSI
Miami Terminal Area	CEW DEFUN Q104 CYY DEEDS (RNAV)–STAR Aircraft through ZHU airspace remain south ZME and ZTL airspace or SZW HEVVN Q104 CYY DEEDS (RNAV)–STAR
Minneapolis Terminal Area	Aircraft from north, west, south, FAR GOPHER–STAR or RWF SKETR–STAR or ALO KASPR–STAR or BRD GOPHER–STAR or BAE EAU CLAIRE–STAR or FOD TWOLF–STAR
Memphis Terminal Area	ARG, BWG, FSM, PXV, LIT, RZC, SQS, VUZ, BNA, GQO, ELD
Naples, FL	CEW DEFUN Q104 PLYER PIKKR (RNAV)–STAR Aircraft through ZHU AIRSPACE remain south of ZME and ZTL airspace or SZW HEVVN Q104 PLYER PIKKR (RNAV)–STAR
Nashville	CCT, GHM, GUITR, TINGS, VOLLIS
New Orleans Terminal Area	BLUEZ, GPT, LCH, MCB, TBD, FATSO
Oakland	ILA or KATTS PAMMY or Aircraft over or south of a line ILC J16 DVC REANA KATTS PAMMY or Aircraft from north of ILC, JOPER PAMMY or KATTS PAMMY or Aircraft over or south of ILC, REANA KATTS PAMMY
Orlando Terminal Area	GADAY Q108 CLAWZ LEESE–STAR Aircraft through ZHU airspace remain south of ZME/ZTL airspace or OTK LEESE–STAR

Palm Beach, FL	CEW DEFUN Q112 INPIN GULLO (RNAV)–STAR Aircraft through ZHU airspace remain south of ZME and ZTL airspace or SZW INPIN GULLO (RNAV)–STAR
Phoenix	CORKR DRK or Aircraft from ZDV airspace, GUP or Aircraft from ZAB airspace, ZUN, MOHAK, SSO or VYLLA TUS
Phoenix Satellites	FLG, SSO, MOHAK or VYLLA, TUS
Portland, OR Terminal Area	ARNIT BONVL–STAR or LARNO BONVL–STAR or MOXEE MOXEE–STAR
St. Louis Terminal Area	SGF TRAKE–STAR or BUM TRAKE–STAR or ANX TRAKE–STAR or LMN IRK RIVRS–STAR or RBS VANDALIA–STAR
Salt Lake City Terminal Area	JNC J12 HELPR SPANE–STAR or EKR MTU SPANE–STAR or BCE DTA–TCH or MLF DTA–TCH or BVL BONNEVILLE–STAR or BYI BEARR–STAR or PIH BEARR–STAR or DBS BRIGHAM CITY–STAR or JAC BRIGHAM CITY–STAR or BPI BRIGHAM CITY–STAR or OCS BRIGHAM CITY–STAR
San Diego Terminal Area	EED, LAX, GBN
Santa Ana	HEC, PGS, BLD, HIPPI
San Antonio Terminal Area	IDU, CSI, JCT, LLO, CRP, LRD or West of a north–south line at LFK, BLEWE or East of a north–south line at LFK, IDU

San Francisco	FMG GOLDEN GATE--STAR
	or
	MVA MODESTO--STAR
	or
	ENI GOLDEN GATE--STAR
	or
San Jose	OAL MODESTO--STAR
	or
	South of a line ILC to DVC, REANA KATTS OAL MODESTO--STAR
	FMG HYP EL NIDO--STAR
	or
	OAL HYP EL NIDO--STAR
Seattle Terminal Area	or
	ENI GOLDEN GATE--STAR
	or
	South of a line ILC to DVC, REANA KATTS KICHI CANDA EL NIDO--STAR
	Aircraft from northeast, southeast, south, TEMPL GLASR--STAR
	or
Southwest Florida Airports RSW and FMY	SUNED CHINS--STAR
	or
	BTG OLMYPIA--STAR
	CEW DEFUN Q104 SWABE JOSFF--STAR
	Aircraft through ZHU airspace remain south of ZME and ZTL airspace
	or
Tampa Terminal Area	SZW HEVVN Q104 SWABE JOSFF--STAR
	CEW DEFUN Q104 HEVVN DARBS--STAR
	Aircraft through ZHU airspace remain south of ZME and ZTL airspace
	or
	SZW DARBS--STAR
	DRK PXR
Tucson	or
	MOHAK GBN



## VISUAL FLIGHT RULES (VFR) WAYPOINTS

VFR Waypoint names consist of five letters beginning with "VP". Stand-alone VFR Waypoints are portrayed on VFR Charts using the same four-point star symbol currently used for Instrument Flight Rules (IFR) Waypoints.

VFR Waypoints collocated with Visual Checkpoints (Visual Reporting Points) are portrayed with a Visual Check Point flag. The VFR Waypoint name is shown in parentheses adjacent to the Visual Check Point name.

VFR Waypoint names are not intended to be pronounceable and shall not be used in ATC communications.

CAUTION: GPS accuracy necessitates extra vigilance for other aircraft when navigating near any fix retrieved from a GPS database.

## BALTIMORE–WASHINGTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPAXI	_____	N38°34.57' /W076°20.38'
VPONX	_____	N39°06.65' /W076°55.92'
VPOOP	_____	N38°56.32' /W076°36.90'

## BOSTON HELICOPTER CHART

VPBAY	_____	N42°16.17' /W070°49.48'
VPBLT	_____	N42°19.67' /W070°53.40'
VPCGS	_____	N42°22.08' /W071°03.13'
VPEVS	_____	N42°23.52' /W071°04.10'
VPFEN	_____	N42°12.58' /W071°08.88'
VPFRE	_____	N42°25.03' /W071°12.32'
VPGLV	_____	N42°21.88' /W070°52.18'
VPHAM	_____	N42°30.13' /W071°07.15'
VPPIK	_____	N42°20.37' /W071°15.93'
VPQUA	_____	N42°12.10' /W071°04.78'
VPQUB	_____	N42°12.60' /W070°59.83'
VPSPF	_____	N42°24.20' /W071°09.47'
VPTOB	_____	N42°31.42' /W070°59.82'
VPWAN	_____	N42°36.88' /W071°19.45'

## BOSTON TERMINAL AREA CHART

VPCOH	Cohasset	N42°13.58' /W070°48.94'
VPCUT	Cuttyhunk Harbor	N41°25.50' /W070°55.03'
VPFRA	Framingham Shopping Center	N42°18.16' /W071°23.65'
VPHOL	Woods Hole	N41°31.06' /W070°40.60'
VPHUL	Hull	N42°18.20' /W070°55.30'
VPLPT	Nantucket Great Point	N41°23.41' /W070°02.78'
VPNED	Needham Towers	N42°18.51' /W071°14.64'
VPPEA	Peabody Shopping Center	N42°32.52' /W070°56.69'
VPROC	Rockingham Race Track	N42°46.29' /W071°13.57'
VPSCI	Scituate	N42°11.89' /W070°43.69'
VPTPT	Nantucket Third Point	N41°18.51' /W070°03.37'
VPTUC	Tuckernuck	N41°18.31' /W070°15.43'
VPWAK	Wakefield	N42°30.72' /W071°05.24'
VPWAN	Wang Towers	N42°36.88' /W071°19.45'

## CHARLOTTE SECTIONAL CHART

VPATO	_____	N34°37.37' /W076°31.47'
VPAVA	_____	N34°57.00' /W077°16.50'
VPBFE	_____	N32°16.38' /W080°47.50'
VPBRA	_____	N36°13.75' /W076°08.08'
VPGCE	_____	N36°03.90' /W076°36.42'
VPGHI	_____	N35°15.30' /W075°31.25'
VPGIO	_____	N35°32.50' /W076°37.33'
VPKJU	_____	N35°26.58' /W076°10.22'
VPLMN	_____	N34°55.43' /W077°46.42'
VPMAB	_____	N34°42.20' /W077°03.50'
VPNPO	ISLE OF PALMS	N32°47.78' /W079°46.45'
VPOKY	_____	N35°06.53' /W075°59.17'
VPREP	_____	N32°33.98' /W080°21.82'
VPRRS	_____	N33°25.45' /W079°07.60'
VPUMO	_____	N35°35.63' /W075°28.08'
VPWZO	_____	N36°00.87' /W075°40.07'
VPZIE	_____	N32°01.62' /W080°53.42'

## CHICAGO SECTIONAL CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCOH	_____	N31°49.35'/W081°51.07'

## DENVER TERMINAL AREA CHART/FLYWAY CHART

VPBEN	_____	N39°44.28'/W104°26.00'
VPFTG	_____	N39°44.35'/W104°32.75'
VPNIC	NORTH INTERCHANGE	N39°58.90'/W104°59.27'

## HOUSTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPBWY	_____	N29°46.25'/W095°09.24'
VPDTN	_____	N29°46.59'/W095°22.01'
VPGLA	_____	N30°08.32'/W095°06.62'
VPGLB	_____	N30°07.80'/W094°55.70'
VPKTY	_____	N29°47.05'/W095°44.92'
VPPLN	_____	N30°08.80'/W095°50.42'
VPRSN	_____	N29°30.00'/W095°41.00'
VPSND	_____	N29°23.13'/W095°28.86'
VPSNT	_____	N29°49.29'/W094°53.94'
VPTNE	_____	N29°47.48'/W095°03.34'
VPTNW	_____	N29°47.06'/W095°33.81'
VPTRK	_____	N29°24.06'/W095°10.44'

## JACKSONVILLE SECTIONAL CHART

VPAFI	_____	N31°49.35'/W081°51.07'
VPAFY	_____	N30°07.00'/W081°21.33'
VPBEC	_____	N29°46.25'/W081°15.10'
VPCJA	_____	N29°30.00'/W081°06.00'
VPCKY	_____	N28°46.50'/W082°34.00'
VPCNY	_____	N28°30.00'/W080°45.00'
VPDAD	DADE CITY	N28°22.57'/W082°11.25'
VPDAR	_____	N31°22.38'/W081°24.13'
VPDFI	_____	N29°00.17'/W081°20.85'
VPDUT	_____	N27°37.70'/W082°09.10'
VPEAR	CLEARWATER BEACH	N27°58.67'/W082°49.83'
VPEGV	_____	N29°39.97'/W081°24.87'
VPFFU	_____	N28°57.08'/W081°00.33'
VPGPE	ST PETE BEACH	N27°43.50'/W082°44.67'
VPHAA	_____	N30°04.02'/W083°40.02'
VPHUC	_____	N28°19.87'/W082°43.77'
VPIWA	MIDWAY	N31°48.33'/W081°25.85'
VPJMY	_____	N29°26.92'/W081°18.27'
VPKER	LAKE PARKER	N28°04.00'/W081°56.00'
VPLEV	_____	N28°48.00'/W080°52.00'
VPLJA	_____	N29°00.00'/W080°51.00'
VPMAI	_____	N30°50.02'/W084°56.63'
VPTLH	_____	N30°32.70'/W083°52.22'
VPXZY	_____	N29°35.00'/W083°10.00'
VPYIW	_____	N30°42.28'/W081°27.25'
VPZIE	_____	N32°01.62'/W080°53.42'

## KANSAS CITY SECTIONAL CHART

VPAGO	_____	N37°50.33'/W090°29.03'
VPBEK	_____	N37°15.07'/W092°30.67'
VPDEN	_____	N37°46.75'/W092°19.20'
VPENE	_____	N37°44.75'/W091°55.78'
VPES	_____	N36°59.48'/W091°00.88'
VPFME	_____	N37°41.00'/W092°38.33'
VPGXY	_____	N37°15.50'/W091°40.17'
VPMBE	_____	N37°11.08'/W090°27.92'
VPMKE	_____	N37°24.47'/W092°40.00'
VPROV	_____	N38°01.72'/W091°12.81'
VPUTT	_____	N37°52.05'/W092°01.20'

## KANSAS CITY TERMINAL AREA CHART

## KLAMATH FALLS SECTIONAL CHART

## LOS ANGELES HELICOPTER CHART

NE, 22 OCT 2009 to 17 DEC 2009

## LOS ANGELES SECTIONAL CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCNG	CONEJO GRADE US HWY 101	N34°12.54' / W118°59.61'
VPCSU	CSU CHANNEL ISLANDS	N34°09.76' / W119°02.53'
VPFPL	OXNARD FINANCIAL PLAZA	N34°13.71' / W119°10.39'
VPSTC	SATICOY BRIDGE	N34°16.62' / W119°08.34'

## LOS ANGELES TERMINAL AREA CHART/FLYWAY CHART

VPCNG	CONEJO GRADE US HWY 101	N34°12.54' / W118°59.61'
VPCSU	CSU CHANNEL ISLANDS	N34°09.76' / W119°02.53'
VPGETY	GETTY CENTER	N34°04.84' / W118°28.66'
VPLBP	BANNING PASS	N33°56.05' / W116°59.63'
VPLCC	CHAFFEY COLLEGE	N34°08.87' / W117°34.33'
VPLCP	CAJON PASS	N34°18.07' / W117°27.68'
VPLDL	DISNEYLAND	N33°48.72' / W117°55.13'
VPLDP	DANA POINT	N33°27.62' / W117°42.87'
VPLDS	DODGER STADIUM	N34°04.42' / W118°14.42'
VPLFX	91/605 INTERCHANGE	N33°52.38' / W118°06.08'
VPLGP	GRIFFITH PARK OBSERVATORY	N34°07.10' / W118°18.02'
VPLHF	110/405 FWYS	N33°51.42' / W118°17.10'
VPLHP	HUNTINGTON PIER	N33°39.32' / W118°00.25'
VPLKH	KING HARBOR	N33°50.75' / W118°23.88'
VPLLC	L.A. COLISEUM	N34°00.83' / W118°17.27'
VPLLM	LAKE MATHEWS	N33°50.58' / W117°26.85'
VPLMM	MAGIC MOUNTAIN	N34°26.20' / W118°36.28'
VPLMS	MILE SQUARE PARK	N33°43.40' / W117°56.77'
VPLPD	PRADO DAM	N33°53.40' / W117°38.48'
VPLPP	PACIFIC PALISADES	N34°02.13' / W118°32.15'
VPLQM	QUEEN MARY	N33°45.17' / W118°11.37'
VPLRB	ROSE BOWL	N34°09.67' / W118°00.05'
VPLRT	SANTA ANITA RACE TRACK	N34°08.45' / W118°02.65'
VPLSA	SANTA ANA CANYON	N33°52.03' / W117°42.68'
VPLSB	SANTA FE FLOOD BASIN	N34°07.72' / W117°57.30'
VPLSC	STATE COLLEGE	N33°52.97' / W117°53.13'
VPLSF	SAN FERNANDO RESERVOIR	N34°17.87' / W118°29.00'
VPLSP	SIGNAL PEAK	N33°36.33' / W117°48.63'
VPLSR	HAWTHORNE & 405 FREEWAY	N33°53.07' / W118°21.13'
VPLSS	SANTA SUSANA PASS	N34°16.00' / W118°38.43'
VPLTW	TUJUNGA WASH & FOOTHILL	N34°16.40' / W118°20.30'
VPLVT	VINCENT THOMAS BRIDGE	N33°44.97' / W118°16.32'
VPLWT	WATER TANK	N34°10.82' / W118°46.27'
VPNEW	NEWHALL PASS	N34°20.18' / W118°30.72'
VPSTC	SATICOY BRIDGE	N34°16.62' / W119°08.34'

## MIAMI SECTIONAL CHART

VPACH	HOLLYWOOD BEACH	N26°00.92' / W080°06.93'
VPBOV	_____	N27°57.00' / W080°46.75'
VPCLC	_____	N26°27.07' / W082°00.88'
VPCTE	_____	N26°09.28' / W081°20.70'
VPDAD	DADE CITY	N28°22.57' / W082°11.25'
VPDUT	_____	N27°37.70' / W082°09.10'
VPDZE	_____	N27°19.00' / W080°44.17'
VPEAR	CLEARWATER BEACH	N27°58.67' / W082°49.83'
VPEDY	ANDYTOWN TOLLGATE	N26°08.78' / W080°28.00'
VPFAH	_____	N26°25.40' / W081°29.67'
VPGPE	ST PETE BEACH	N27°43.50' / W082°44.67'
VPHRO	_____	N27°05.97' / W082°12.20'
VPHUC	_____	N28°19.87' / W082°43.77'
VPIBR	_____	N27°12.47' / W081°40.22'
VPKER	LAKE PARKER	N28°04.00' / W081°56.00'
VPKOE	_____	N24°40.08' / W081°20.55'
VPLYY	_____	N24°49.07' / W080°49.17'
VPMBO	GULFSTREAM PARK	N25°58.57' / W080°08.17'
VPOBA	PUMPING STATION	N26°28.30' / W080°26.75'
VP RBI	_____	N25°50.67' / W080°55.18'
VP RNL	RANGER STATION	N25°22.92' / W080°36.58'
VPWMO	_____	N27°03.00' / W080°35.00'

## MIAMI TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPACH	HOLLYWOOD BEACH	N26°00.92' /W080°06.93'
VPEDY	ANDYTOWN TOLLGATE	N26°08.78' /W080°28.00'
VPMBO	GULFSTREAM PARK	N25°58.57' /W080°08.17'
VPOBA	PUMPING STATION	N26°28.30' /W080°26.75'
VPRBI		N25°50.67' /W080°55.18'
VPRLN	RANGER STATION	N25°22.92' /W080°36.58'

## NEW ORLEANS SECTIONAL CHART

VPGPT		N30°25.95' /W089°05.62'
VPLIP	PHILLIPS INLET	N30°16.23' /W085°59.25'
VPMAI		N30°50.02' /W084°56.63'
VPMOB		N30°23.00' /W088°31.72'
VPRAM		N30°18.95' /W089°35.88'
VPRER		N30°13.87' /W085°20.67'
VPRIV		N30°54.85' /W087°57.82'
VPSAW		N30°49.65' /W089°07.42'
VPTHR		N30°19.93' /W087°08.50'

## NEW YORK HELICOPTER CHART

VPJAY		N40°59.00' /W073°07.00'
VPLYD		N40°57.37' /W073°29.59'
VPROK		N40°52.70' /W073°44.24'

## PHOENIX TERMINAL AREA CHART/FLYWAY CHART

VPALL	ALLENVILLE	N33°20.97' /W112°35.20'
VPAQU	AQUEDUCT PUMPING STATION	N33°40.05' /W112°41.38'
VPARM	ARROWHEAD MALL	N33°38.52' /W112°13.48'
VPAWG	AHWATUKEE GOLF COURSE	N33°19.98' /W111°59.08'
VPAZM	ARIZONA MILLS	N33°23.43' /W111°57.88'
VPBAR	BARTLETT DAM	N33°49.10' /W111°37.92'
VPCCC	COUNTRY CLUB & CANAL	N33°30.73' /W111°50.37'
VPCNL	CANAL	N33°33.23' /W111°46.89'
VPRFB	FIREBIRD LAKE	N33°16.35' /W111°58.10'
VPFTN	FOUNTAIN HILLS	N33°36.12' /W111°42.72'
VPGLX	GILA CROSSING	N33°16.55' /W112°10.08'
VPGPP	GLENDALE POWER PLANT	N33°33.27' /W112°13.00'
VPMAR	MARICOPA	N33°03.42' /W112°02.88'
VPMHS	MESQUITE HIGH SCHOOL	N33°20.53' /W111°49.58'
VPNRV	NEW RIVER	N33°55.08' /W112°08.45'
VPNTT	NORTH TEST TRACK	N33°03.50' /W111°55.83'
VPPIR	PIR	N33°22.52' /W112°18.90'
VPQTR	QUINTERO GOLF COURSE	N33°49.53' /W112°23.58'
VPRVC	RIO VERDE COMMUNITY	N33°44.37' /W111°39.62'
VPSMC	SOUTH MOUNTAIN COLLEGE	N33°23.02' /W112°02.12'
VPSQP	SQUAW PEAK	N33°32.83' /W112°01.27'
VPSSS	SUPERSTITION SPRINGS MALL	N33°23.50' /W111°41.37'
VPSTN	SANTAN MOUNTAINS	N33°09.23' /W111°40.92'
VPSTT	SOUTH TEST TRACK	N32°56.25' /W111°59.67'
VPZZZ		N33°20.18' /W111°26.53'

## ST LOUIS TERMINAL AREA CHART/FLYWAY CHART

VPAGN	TV ANTENNA	N38°32.08' /W090°22.42'
VPBPE		N38°23.80' /W090°20.38'
VPCJY	HOLIDAY SHORES	N38°55.00' /W089°56.00'
VPCOJ	WINFIELD DAM	N39°00.28' /W090°41.23'
VPDFA	JEFFERSON BARRACKS BRIDGE	N38°29.18' /W090°16.47'
VPEAZ	BUSCH STADIUM	N38°37.43' /W090°11.55'
VPEDJ	WATER TANKS	N38°45.30' /W090°34.87'
VPEGR	GAS TANKS	N38°35.80' /W090°19.32'
VPEOX	ST PETERS	N38°47.17' /W090°39.25'

## WAYPOINT IDENT

VPFAI  
VPFFY  
VPGPF  
VPGVI  
VPHRQ  
VPIBO  
VPJMU  
VPKNY  
VPLES  
VPLIW  
VPLXU  
VPNSY  
VPNZY  
VPAZ  
VPRMO  
VPWKO  
VPXXI  
VPYID

## COLLOCATED VFR CHECKPOINT

HOWELL ISLAND  
  
  
  
CHAIN OF ROCKS BRIDGE  
WATERLOO  
HORSESHOE LAKE  
PACIFIC  
ST CHARLES  
SIX FLAGS  
GATEWAY ARCH  
WOOD RIVER REFINERIES  
WENTZVILLE  
JERSEYVILLE  
FOREST PARK  
COLUMBIA  
MILLSTADT  
MOSENTHEIN ISLAND

## LOCATION

N38°40.00' / W090°43.00'  
N38°55.37' / W090°17.30'  
N38°35.60' / W090°26.92'  
N38°32.30' / W090°27.80'  
N38°45.88' / W090°10.42'  
N38°20.00' / W090°09.00'  
N38°41.00' / W090°05.00'  
N38°29.00' / W090°44.00'  
N38°47.00' / W090°30.00'  
N38°30.67' / W090°40.47'  
N38°37.50' / W090°11.00'  
N38°50.00' / W090°05.00'  
N38°48.83' / W090°50.98'  
N39°07.00' / W090°20.00'  
N38°38.00' / W090°17.00'  
N38°27.00' / W090°12.00'  
N38°27.50' / W090°05.68'  
N38°43.00' / W090°12.25'

## SALT LAKE CITY HELICOPTER CHART

VPAIR  
VPBEE  
VPBRN  
VPCAP  
VPCHS  
VPCOP  
VPCWY  
VPCYN  
VPFPC  
VPFPK  
VPGFS  
VPHVE  
VPJRT  
VPKSL  
VPLGN  
VPMDDH  
VPMMT  
VPMST  
VPNSL  
VPNTPT  
VPOGE  
VPOPS  
VPPEN  
VPPPT  
VPPTM  
VPPVO  
VPRWY  
VPSLC  
VPTIP  
VPWBR  
VPWBT

SALTAIR  
SOUTH INTERCHANGE  
BARN  
STATE CAPITOL  
  
BINGHAM COPPER MINE  
CAUSEWAY  
PARLEYS CANYON  
FREE PORT CENTER  
FRANCIS PEAK  
GARFIELD STACK  
SPAGHETTI BOWL  
JORDAN RIVER TEMPLE  
KSL ANTENNA  
LAGOON AMUSEMENT PARK  
MCKAY DEE HOSPITAL  
MICROWAVE TOWERS  
  
  
GRAIN ELEVATOR  
POWER STATION  
STATE PRISON  
PROMONTORY POINT  
POINT OF THE MOUNTAIN  
PROVO CANYON  
  
I-15/I-80 INTERCHANGE  
SOUTH TIP  
WEBER CANYON

N40°44.85' / W112°11.22'  
N40°38.18' / W111°54.23'  
N40°54.28' / W112°10.15'  
N40°46.67' / W111°53.25'  
N40°42.28' / W112°05.92'  
N40°31.38' / W112°09.00'  
N41°05.37' / W112°07.17'  
N40°42.67' / W111°48.10'  
N41°05.92' / W112°02.27'  
N41°01.98' / W111°50.30'  
N40°43.28' / W112°11.88'  
N40°43.50' / W111°54.22'  
N40°35.02' / W111°55.58'  
N40°46.80' / W112°05.80'  
N40°59.08' / W111°53.57'  
N41°11.50' / W111°57.08'  
N40°48.50' / W111°53.37'  
N41°01.67' / W112°02.47'  
N40°50.15' / W111°54.90'  
N41°03.57' / W112°14.23'  
N41°13.13' / W112°00.45'  
N41°20.38' / W112°02.78'  
N40°29.88' / W111°53.62'  
N41°12.28' / W112°25.73'  
N40°27.42' / W111°54.83'  
N40°18.77' / W111°39.45'  
N40°48.48' / W112°00.33'  
N40°45.83' / W111°54.85'  
N40°50.93' / W112°10.92'  
N41°08.17' / W111°54.83'  
N40°38.00' / W112°03.33'

## SALT LAKE CITY TERMINAL AREA CHART/FLYWAY CHART

VPAIR  
VPBEE  
VPBRN  
VPCAP  
VPCHS  
VPCOP  
VPCVI  
VPCWY  
VPCYN  
VPFPC  
VPFPK  
VPGFS

SALTAIR  
SOUTH INTERCHANGE  
BARN  
STATE CAPITOL  
  
BINGHAM COPPER MINE  
CENTERVILLE INTERCHANGE  
CAUSEWAY  
PARLEYS CANYON  
FREE PORT CENTER  
FRANCIS PEAK  
GARFIELD STACK

N40°44.85' / W112°11.22'  
N40°38.18' / W111°54.23'  
N40°54.28' / W112°10.15'  
N40°46.67' / W111°53.25'  
N40°42.28' / W112°05.92'  
N40°31.38' / W112°09.00'  
N40°55.30' / W111°53.43'  
N41°05.37' / W112°07.17'  
N40°42.67' / W111°48.10'  
N41°05.92' / W112°02.27'  
N41°01.98' / W111°50.30'  
N40°43.28' / W112°11.88'

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPHE	SPAGHETTI BOWL	N40°43.50'/W111°54.22'
VPJRT	JORDAN RIVER TEMPLE	N40°35.02'/W111°55.58'
VPKSL	KSL ANTENNA	N40°46.80'/W112°05.80'
VPLGN	LAGOON AMUSEMENT PARK	N40°59.08'/W111°53.57'
VPMDH	MCKAY DEE HOSPITAL	N41°11.50'/W111°57.08'
VPMMT	MICROWAVE TOWERS	N40°48.50'/W111°53.37'
VPMSH	_____	N41°01.67'/W112°02.47'
VPNSL	_____	N40°50.15'/W111°54.90'
VPNTP	_____	N41°03.57'/W112°14.23'
VPOGE	GRAIN ELEVATOR	N41°13.13'/W112°00.45'
VPOPS	POWER STATION	N41°20.38'/W112°02.78'
VPPEP	STATE PRISON	N40°29.88'/W111°53.62'
VPPTT	PROMONTORY POINT	N41°12.28'/W112°25.73'
VPPTM	POINT OF THE MOUNTAIN	N40°27.42'/W111°54.83'
VPVPO	PROVO CANYON	N40°18.77'/W111°39.45'
VPRWY	_____	N40°48.48'/W112°00.33'
VPSLC	I-15/I-80 INTERCHANGE	N40°45.83'/W111°54.85'
VPTIP	SOUTH TIP	N40°50.93'/W112°10.92'
VPUOU	U OF U EVENTS CENTER	N40°45.73'/W111°50.28'
VPWBR	WEBER CANYON	N41°08.17'/W111°54.83'
VPWBT	_____	N40°38.00'/W112°03.33'
VPZOO	HOGLE ZOO	N40°45.00'/W111°48.95'

### SAN DIEGO TERMINAL AREA CHART/FLYWAY CHART

VPLDP	DANA POINT	N33°27.62'/W117°42.87'
VPLSP	SIGNAL PEAK	N33°36.33'/W117°48.63'
VPOCN	_____	N33°14.15'/W117°26.63'
VPSBC	BARONA CASINO	N32°56.25'/W116°52.60'
VPSBL	_____	N33°05.18'/W117°18.55'
VPSBM	BLACK MOUNTAIN	N32°58.87'/W117°07.00'
VPSCF	_____	N32°48.55'/W117°09.17'
VPSCM	COWLES MOUNTAIN	N32°48.72'/W117°01.97'
VPSCP	CRYSTAL PIER	N32°47.77'/W117°15.42'
VPSCR	_____	N32°39.37'/W117°07.30'
VPSFB	IRON MOUNTAIN	N32°58.25'/W116°57.33'
VPSLJ	LAKE JENNINGS	N32°51.53'/W116°53.28'
VPSMB	_____	N32°45.57'/W117°12.22'
VPSMP	_____	N33°22.70'/W117°36.75'
VPSMS	MOUNT SOLEDAD	N32°50.40'/W117°15.10'
VPSMV	_____	N32°45.75'/W117°09.80'
VPSMW	MOUNT WOODSON	N33°00.52'/W116°58.23'
VPSOP	OTAY MESA PRISON	N32°35.82'/W116°55.28'
VPSOT	LOWER OTAY LAKE	N32°37.73'/W116°55.38'
VPSPL	SOUTH POINT LOMA	N32°39.90'/W117°14.55'
VPSPP	POWER PLANT	N33°08.25'/W117°20.23'
VPSQS	QUALCOMM STADIUM	N32°46.98'/W117°07.23'
VPSRT	DEL MAR RACE TRACK	N32°58.58'/W117°15.95'
VPSSM	SAN MIGUEL MOUNTAIN	N32°41.78'/W116°56.18'
VPSSV	SAN VICENTE ISLAND	N32°55.53'/W116°55.00'
VPSTP	TORREY PINES GOLF COURSE	N32°54.17'/W117°14.68'
VPSVA	_____	N33°11.48'/W117°16.38'

### SAN FRANCISCO SECTIONAL CHART

VPKBG	KINGSBURY GRADE	N38°58.75'/W119°53.20'
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### SAN FRANCISCO TERMINAL AREA CHART/FLYWAY CHART

VPALT	ALTAMONT PASS	N37°44.35'/W121°35.42'
VPANT	ANTIOCH BRIDGE	N38°01.45'/W121°45.02'
VPBBR	BENICIA BRIDGE	N38°02.50'/W122°07.45'
VPCAL	CALAVERAS RESERVOIR	N37°28.16'/W121°48.93'
VPCBT	LAKE CHABOT	N37°43.68'/W122°06.94'
VPCOY	COYOTE HILLS	N37°32.50'/W122°05.06'
VPCQZ	CARQUINEZ BRIDGE	N38°03.66'/W122°13.52'
VPCRL	_____	N37°11.00'/W121°41.06'
VPCRY	CRYSTAL SPRINGS CAUSEWAY	N37°30.56'/W122°21.10'

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCSH	CAL STATE UNIVERSITY	N37°39.52'/W122°03.52'
VPDAM	DEL VALLE DAM	N37°36.91'/W121°44.78'
VPDLR		N37°07.00'/W121°47.06'
VPDUB	DUBLIN	N37°42.06'/W121°55.36'
VPEMB	EMBASSY SUITES	N37°26.05'/W121°53.83'
VPGGF	GOLDEN GATE FIELDS	N37°53.07'/W122°18.71'
VPGIL	GILROY	N37°01.37'/W121°33.99'
VPHHH	HAMILTON	N38°03.58'/W122°30.66'
VPKGO	KGO	N37°31.58'/W122°06.10'
VPLEX	LEXINGTON RESERVOIR	N37°11.66'/W121°59.18'
VPMID	MID-SPAN SAN MATEO BRIDGE	N37°36.28'/W122°11.81'
VPMOR	MORMON TEMPLE	N37°48.46'/W122°11.95'
VPNUM	NUMMI PLANT	N37°29.56'/W121°56.58'
VPPAC		N37°38.00'/W122°32.07'
VPPRU	PRUNEYARD	N37°17.33'/W121°56.01'
VPSAR	SARATOGA	N37°15.26'/W122°02.33'
VPSLA	SLAC/LINEAR ACCELERATOR	N37°24.75'/W122°14.35'
VPSTB	STINSON BEACH	N37°54.45'/W122°40.41'
VPSUN	SUNOL GOLF COURSE	N37°34.85'/W121°53.23'
VPUTC	U.T.C.	N37°13.93'/W121°41.35'
VPWAL	WALNUT CREEK	N37°53.78'/W122°04.30'
VPWAM		N37°30.28'/W122°10.00'
VPWFR	CEMENT PLANT	N37°30.88'/W122°12.26'

## TAMPA/ORLANDO TERMINAL AREA CHART/FLYWAY CHART

VPBOV		N27°57.00'/W080°46.75'
VPCNY		N28°30.00'/W080°45.00'
VPDAD	DADE CITY	N28°22.57'/W082°11.25'
VPDFI		N29°00.17'/W081°20.85'
VPDUT		N27°37.70'/W082°09.10'
VPEAR	CLEARWATER BEACH	N27°58.67'/W082°49.83'
VPFFU		N28°57.08'/W081°00.33'
VPGPE	ST PETE BEACH	N27°43.50'/W082°44.67'
VPHUC		N28°19.87'/W082°43.77'
VPKER	LAKE PARKER	N28°04.00'/W081°56.00'
VPLEV		N28°48.00'/W080°52.00'
VPLJA		N29°00.00'/W080°51.00'

## WASHINGTON SECTIONAL CHART

VSPACE		N38°07.82'/W076°48.75'
VPAXI		N38°34.57'/W076°20.38'
VPBRA		N36°13.75'/W076°08.08'
VPGCE		N36°03.90'/W076°36.42'
VPWZO		N36°00.87'/W075°40.07'



## VOR RECEIVER CHECK VOR RECEIVER CHECKPOINTS AND VOT TEST FACILITIES (VOT)

The use of VOR airborne and ground checkpoints is explained in Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

NOTE: Under columns headed Type of Checkpoint & Type of VOT Facility G stands for ground. A/ stands for airborne followed by figures (2300) or (1000-3000) indicating the altitudes above mean sea level at which the check should be conducted. Facilities are listed in alphabetical order, in the state where the checkpoints or VOTs are located.

### CONNECTICUT

#### VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt.	Azimuth from Gnd. Fac.	Dist. from Fac.	Checkpoint Description
		AB/ALT	Mag	N.M.	
<b>Carmel</b> (Danbury Muni) .....	116.6/CMK	A/1500	050	6.7	Over apch end of Rwy 08.
<b>Madison</b> (Chester) .....	110.4/MAD	A/1500	076	9.4	Over small hangar.
<b>Madison</b> (Meriden Markham Muni) .....	110.4/MAD	A/1500	345	13.4	Over small hangar.
<b>Norwich</b> (Windham) .....	110.0/ORW	A/1500	339	13.9	Over intersection of rwy and twy.
<b>Putnam</b> (Danielson) .....	117.4/PUT	A/1300	211	8.5	Over int of ramp taxiway and rwy.

#### VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
<b>Bradley Intl</b> .....	111.4	G	
<b>Bridgeport</b> (Igor I. Sikorsky Mem) .....	109.25	G	
<b>Groton</b> (Groton-New London) .....	110.25	G	
<b>Hartford</b> (Hartford-Brainard) .....	108.2	G	

### DELAWARE

#### VOR RECEIVER CHECK POINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt.	Azimuth from Gnd. Fac.	Dist. from Fac.	Checkpoint Description
		AB/ALT	Mag	N.M.	
<b>Smyrna</b> (Delaware Airpark) .....	111.4/ENO	A/1000	267	3.6	Over thld Rwy 27.
<b>Wilmington</b> (New Castle) .....	114.0/DQO	G	170	0.5	On runup pad Rwy 01. OTS indef.
		G	284	0.6	On Twy 'K' at Rwy 09.
		G	067	0.5	On Twy 'K' at Rwy 27. OTS indef.
<b>Wilmington</b> (Summit Airpark) .....	114.0/DQO	A/1200	219	10.8	Over rotating bcen. OTS indef.

### DISTRICT OF COLUMBIA

#### VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
<b>Ronald Reagan Washington Natl</b> .....	109.4	G	Unusable in front of north hangar (interim terminal)

# VOR RECEIVER CHECK MAINE

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## VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Augusta</b> (Auburn-Lewiston Muni) .....	111.4/AUG	A/1500	250	26.5	Over intersection of rwys.
<b>Bangor</b> (Bangor Intl) .....	114.8/BGR	G	153	3.8	On runup area Rwy 33.
<b>Kennebunk</b> (Sanford Rgnl) .....	117.1/ENE	A/1300	267	4.5	Over Twy C and dsplcd thld Rwy 14.
<b>Presque Isle</b> (Caribou Muni) .....	116.4/PQI	A/1700	051	6.5	Over intersection of rwys.
<b>Presque Isle</b> (Northern Maine Rgnl Arpt at Presque Is) .....	116.4/PQI	A/2000	180	5.7	Over intersection of rwys.
<b>Princeton</b> (Princeton Muni) .....	114.3/PNN	A/1300	164	9.6	Over intersection of rwy and strip. OTS indef.

## VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
<b>Portland Intl Jetport</b> .....	111.0	G	
<b>Bangor Intl</b> .....	111.0	G	

# MARYLAND

## VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Frederick</b> (Frederick Muni) .....	109.0/FDK	G	035	0.6	On runup pad apch end Rwy 23.
<b>Frederick</b> (Montgomery County Airpark) .....	109.0/FDK	G	359	0.6	Intersection Twys H and D.
<b>Hagerstown</b> (Hagerstown Rgnl-Richard A Henson Fld) .....	109.8/HGR	A/2000	155	17.2	Over apch end Rwy 14.
<b>Salisbury</b> (Ocean City Muni) .....	109.8/HGR	A/1700	089	5.3	Over new ATCT.
<b>Salisbury</b> (Ocean City Muni) .....	111.2/SBY	A/1300	109	18.6	Intersection of twy and Rwy 32.
<b>Salisbury</b> (Salisbury-Ocean City Wicomico Rgnl) .....	111.2/SBY	G	221	0.7	Runup pad Rwy 05.

# VOR RECEIVER CHECK MASSACHUSETTS VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Barnes</b> (Barnes Muni) .....	113.0/BAF	G	207	1	From the facility.
<b>Gardner</b> (Fitchburg Muni) .....	110.6/GDM	A/1500	102	13.0	Over intersection of rwys.
<b>Gardner</b> (Metropolitan) .....	110.6/GDM	A/2000	097	1.9	Over intersection of twy and rwy.
<b>Gardner</b> (Orange Muni) .....	110.6/GDM	A/1500	292	10	Over parachute jump circle.
<b>Gardner</b> (Worcester Rgnl) .....	110.6/GDM	A/2000	167	18.8	Over intersection of Rwys 11-29 and 15-33.
<b>Lawrence</b> (Plum Island) .....	112.5/LWM	A/1500	089	11.8	Over apch end Rwy 10.
<b>Marthas Vineyard</b> (Marthas Vineyard) .....	114.5/MVY	G	216	0.7	On runoff block for Rwy 06.
<b>Nantucket</b> (Nantucket Memorial) .....	116.2/ACK	G	242	1.9	On runoff area at apch end Rwy 24.
<b>Putnam</b> (Southbridge Muni) .....	117.4/PUT	A/1700	329	12	Over intersection of twy and rwy.

## VOT TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
<b>Laurence G. Hanscom</b> .....	110.0	G	
<b>Gen. Ed. Lawrence Logan Intl.</b> .....	111.0	G	
<b>Worcester Rgnl</b> .....	108.2	G	

# NEW HAMPSHIRE VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Berlin</b> (Berlin Rgnl) .....	110.4/BML	A/2600	190	6.0	Over ski jump on W side of road.
	110.4/BML	G	191	3.4	Hold short line Rwy 18-36.
<b>Gardner</b> (Jaffrey Arpt-Silver Ranch) .....	110.6/GDM	A/2000	023	15.8	Over intersection of rwy and twy.
<b>Lebanon</b> (Lebanon Muni) .....	113.7/LEB	A/1600	246	5.0	Over intersection of Rwys 07-25 and 18-36.
	113.7/LEB	G	248	5.1	On Bravo-Two twy.
<b>Pease</b> (Portsmouth Intl at Pease) .....	116.5/PSM	G	015	0.4	North runoff pad.
		G	157	1.5	On south runoff pad.
<b>Pease</b> (Skyhaven) .....	116.5/PSM	A/1500	356	12.6	Over windsock.

# NEW JERSEY VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Cedar Lake</b> (Millville Muni) .....	115.2/VCN	A/1500	215	11.4	Over intersection Rwys 10-28 and 14-32.
<b>Coyle</b> (Lakewood) .....	113.4/CYN	A/1000	048	18.9	Over apch end Rwy 06.
<b>Coyle</b> (Robert J. Miller Air Park) .....	113.4/CYN	A/1500	054	9.0	Over apch end Rwy 06.
<b>Robbinsville</b> (Trenton-Robbinsville) .....	113.8/RBV	A/1200	289	5.2	Over apch end Rwy 11.
<b>Sea Isle</b> (Cape May County) .....	114.8/SIE	A/1200	236	6.8	Over apch end Rwy 19.
<b>Yardley</b> (Trenton Mercer) .....	108.2/ARD	A/1500	080	4.5	Over ATCT.

# VOR RECEIVER CHECK NEW YORK

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## VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Binghamton</b> (Greater Binghamton/Edwin A Link Fld) .....	112.2/CFB	G	075	7.6	On north ramp.
<b>Binghamton</b> (Tri-Cities) .....	112.2/CFB	A/2000	170	5.0	Over rwy intersection.
<b>Carmel</b> (Westchester County) .....	116.6/CMK	A/1500	215	14.0	Over center of arpt.
<b>Dunkirk</b> (Chautauqua Co/Dunkirk) .....	116.2/DKK	G	043	0.5	On twy adjacent to the apch end Rwy 24.
<b>Glens Falls</b> (Floyd Bennett Memorial) .....	110.2/GFL	G	034	0.5	On runup area Rwy 19.
<b>Groton</b> (Elizabeth Field) .....	110.85/GON	A/1200	183	4.8	Over intersection of rwys.
<b>Huguenot</b> .....	116.1/HUO	A/3000	222	6.2	Over monument on hill.
<b>Huguenot</b> (Randall) .....	116.1/HUO	A/1500	093	8.8	Over apch end Rwy 07.
<b>Ithaca</b> (Tompkins Rgnl) .....	111.8/ITH	G	157	0.8	On twy apch end Rwy 32.
<b>Jamestown</b> (Chautauqua County/Jamestown) .....	114.7/JHW	A/2500	260	6.2	Over hangar NE corner of arpt.
<b>Kingston</b> (Sky Acres) .....	117.6/IGN	A/2500	070	5.0	Over intersection of twy and Rwy 17-35.
<b>Kingston</b> (Sky Park) .....	117.6/IGN	A/1500	010	18.8	Over apch end Rwy 01.
<b>Poughkeepsie</b> (Dutchess County) .....	114.3/PWL	A/1500	248	15.2	Over intersection Rwys 15-33 and 06-24.
<b>Rockdale</b> (Oneonta Muni) .....	112.6/RKA	A/3000	078	8.5	Over hangar.
<b>Rockdale</b> (Sidney Muni) .....	112.6/RKA	A/2200	229	12.5	Over hangar.
<b>Rochester</b> (Greater Rochester Intl) .....	110.0/ROC	G	98	0.6	On Twy 'K' between Twys 'F' and 'J'. (Near de-ice pad).
<b>Saranac Lake</b> .....	109.2/SLK	A/3000	141	4.2	Over microwave tower on Mt Pisgah.
<b>Watertown</b> (Watertown Intl) .....	109.8/ART	G	046	3.0	On ramp in front of administration building.

## VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
<b>Albany County</b> .....	108.2	G	Unusable runup and hold areas Twy M. Unusable runup pad, holding area and apch end of Rwy 19.
<b>Buffalo Niagara Intl</b> .....	109.0	G	
<b>Islip</b> (Long Island MacArthur) .....	109.4	G	
<b>John F. Kennedy Intl</b> .....	115.1	G	

# PENNSYLVANIA

## VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Bradford</b> (Bradford Rgnl) .....	116.6/BFD	G	321	1.1	On SE twy midway between ramp and Rwy 32.
<b>Clarion</b> (Clarion County) .....	112.9/CIP	A/3000	286	10.9	Over center of interstate bridge/river.
<b>East Texas</b> (Allentown Queen City Muni) ....	110.2/ETX	A/1200	103	9.2	Over intersection of Rwys 07-25 and 14-32. Checkpoint unavbl indef.

## VOR RECEIVER CHECK

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Erie</b> (Erie Intl/Tom Ridge Fld) .....	109.4/ERI	G	060		6.1 NM on twy at apch end Rwy 06. Ground receiver checkpoint OTS.
<b>Hazelton</b> (Hazelton Muni) .....	109.4/HZL	G	093		On short twy midfield. VOR ground checkpoint OTS indef.
<b>Lancaster</b> (Lancaster) .....	117.3/LRP	G	306	0.5	On Twy M.
<b>Milton</b> (Bloomsburg Muni) .....	109.2/MIP	A/1500	108	10.3	Over threshold Rwy 08.
<b>North Philadelphia</b> (Northeast Philadelphia) .....	112.0/PNE	G	215		Twy F.
<b>Philipsburg</b> (Mid-State) .....	115.5/PSB	G	256	4.5	On twy near intersection of Rwys 06-24 and 16-34.
<b>Philipsburg</b> (University Park) .....	115.5/PSB	A/2500	132	7.6	Over intersection of Rwys 06-24 and 16-34.
<b>Pottstown</b> (Pottstown Muni) .....	116.5/PTW	A/1500	303	5.6	Over E hangar. VOR airborne checkpoint OTS indef.
<b>Ravine</b> (Muir AAF) .....	114.6/RAV	A/2500	179	7.7	Over water twr ½ NM NE of rwy.
<b>Ravine</b> (Schuylkill County/Joe Zerbey) .....	114.6/RAV	A/2000	060	13.9	Over intersection of Rwys 11-29 and 04-22. VOR airborne checkpoint OTS indef.
<b>Solberg</b> (Doylestown) .....	112.9/SBJ	A/1500	240	22.6	Over apch end Rwy 23.
<b>Stonyfork</b> (Wellsboro Johnston) .....	108.6/SFK	A/3600	111	6.5	Over 2558' tower.
<b>Wilkes-Barre</b> (Pocono Mountains Muni) .....	111.6/LVZ	A/3000	131	16.2	Over intersection of Rwys 05-23 and 13-31.

## VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
<b>Harrisburg Intl</b> .....	110.0	G	
<b>Philadelphia Intl.</b> .....	109.8	G	Unusable west of Twy Y.

## RHODE ISLAND

## VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Providence</b> (Newport State) .....	115.6/PVD	A/1400	164	13.4	Over intersection of rwys.
<b>Providence</b> (North Central State) .....	115.6/PVD	A/1500	360	12.2	Over intersection of rwys.
<b>Groton</b> (Block Island State) .....	110.85/GON	A/1800	129	23.5	Over terminal building.

## VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
<b>Providence</b> (Theodore Francis Green State) .....	108.2	G	

# VOR RECEIVER CHECK

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## VERMONT VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
<b>Burlington Intl.</b> .....	109.0	G	

## VIRGINIA VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd.	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Cape Charles</b> (Campbell Field) .....	112.2/CCV	AB/ALT	050	8.9	Over rwy intersection.
<b>Cape Charles</b> (Tangier Island) .....	112.2/CCV	A/1000	010	28.4	Over apch end Rwy 02.
<b>Danville</b> (Danville Rgnl) .....	113.1/DAN	G	340		At intersection of Twy A and hangar row near Twy E.
<b>Flat Rock</b> (Farmville Rgnl) .....	113.3/FAK	A/1600	257	31	Over intersection of twy and rwy.
<b>Lynchburg</b> (Lynchburg Rgnl-Preston Glenn Field) .....	109.2/LYH	G	026	5.0	West runup area adjacent to Rwy 22.
<b>Norfolk</b> (Norfolk Intl) .....	116.9/ORF	G	031		At center of twy E 250' NW of centerline of Rwy 23.
<b>Richmond</b> .....	114.1/RIC	A/2100	306	8.5	Over 1054' twr.
<b>Richmond</b> (Richmond Intl) .....	114.1/RIC	G	005	.9	On run up area Rwy 16
		G	344	.9	Twy.
		G	138	.7	On twy in front of Aeronautical Services hangar.
		G	270	.7	Twy front of Army Guard ramp.
					On Twy J between Twys A and T.
<b>South Boston</b> (Danville Rgnl) .....	110.4/SBV	A/1500	255	16.8	Over terminal building.

## WEST VIRGINIA VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd.	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
<b>Lewisburg</b> (Greenbrier Valley) .....	116.05/LWB	AB/ALT	236	.7	On Twy A northwest on Twy E.
<b>Martinsburg</b> (Eastern West Virginia Rgnl Shepherd Fld) .....	112.1/MRB	G	281	6.2	At apch end Rwy 35.
		G	284		D twy south of Rwy 08-26.
		G	284		Twy C intersection with Rwy 08-26.
		G	287	6.5	In front of twr on twy A. VOR receiver checkpoint OTS.
<b>Morgantown</b> (Morgantown Muni-Walter L. Bill Hart Fld) .....	111.6/MGW	G	337	5.8	Intersection of Twys A and C.
<b>Parkersburg</b> (Mid-Ohio Valley Rgnl) .....	108.6/JPU	G	211°	6.3	Intersection of Twy A and Twy D.
		G	208	6.5	Twy J and apch end Rwy 28.
<b>Wheeling</b> (Wheeling Ohio Co) .....	112.2/HLG	G	223	5.9	On twy on east side of ramp.

## VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
<b>Charleston</b> (Yeager) .....	108.8	G	

The following tabulation lists all reported parachute jumping sites in the area of coverage of this directory. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions. The busiest periods of activity are normally on weekends and holidays, but jumps can be expected at anytime during the week at the locations listed. Jumps within restricted airspace are not listed.

All times are local and altitudes MSL unless otherwise specified.

Contact facility and frequency is listed at the end of the remarks, when available, in bold face type.

Refer to Federal Aviation Regulations Part 105 for required procedures relating to parachute jumping.

Organizations desiring listing of their jumping activities in this publication should contact the nearest FSS, tower or ARTCC.

Qualified parachute jumping sites will be depicted on the appropriate visual chart(s).

Note: (c) in this publication indicates that the parachute jump area is charted.

To qualify for charting, a jump area must meet the following criteria:

- (1) Been in operation for at least 1 year.
- (2) Operate year round (at least on weekends).
- (3) Log 4,000 or more jumps each year.

In addition, jump sites can be nominated by FAA Regions if special circumstances require charting.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
<b>CONNECTICUT</b>			
(c) Danielson Arpt .....	8 NM; 211° Putnam .....	12,500	5 NM radius. Weekends and holidays.
(c) Ellington Arpt .....	17 NM; 025° Hartford .....	15,000	Fri, Sat, Sun, and occasional weekdays. 0.25 NM radius Pea Stone target
Harwinton .....	25 NM; 300° Hartford .....	7,200	0700-SS weekends.
<b>DELAWARE</b>			
Georgetown, Sussex Co. Arpt .....	10 NM; 230° Waterloo .....	12,500	0900-SS Weekends; 1700-SS Wednesday.
Selbyville, Warrington Fld .....	17 NM; 079° Salisbury .....	15,000	Weekends and holidays.
(c) Western Suxsex/Booth Fld .....	12 NM; 356° Salisbury .....	12,000	5 NM radius. SR-SS daily.
<b>MAINE</b>			
(c) Lebanon .....	13 NM; 275° Kennebunk .....	14,000	0800-SS daily.
Millinocket Muni Arpt .....	9.5 NM; 319° Millinocket .....	14,000 AGL	5 NM radius. Daily SR-SS.
<b>MARYLAND</b>			
Accident .....	14 NM; 275° Grantsville .....		
Edgewood .....	29 NM; 056° Baltimore .....	10,000	Weekends, evenings, occasional weekdays
Gambrells, Dairy Farm Drop Zone .....	7 NM; 198° Baltimore .....	1300 AGL	0.5 NM radius. Weekends-November thru April.
Long Greene Drop Zone .....	21 NM; 038° Baltimore .....	10,000 AGL	0.5 NM radius. Weekends.
(c) Ocean City Muni Arpt .....	18 NM; 108° Salisbury .....	15,000	3 NM radius. 1 May-30 Nov continuous.
Patuxent River NAS (Trapnell Fld) .....	1.2 NM; 243° Patuxent .....	Unrestricted	0.25 NM radius. 1600-SS Mon-Fri, 0800-SS Sat, Sun, Holidays.
	0.7 NM; 303° Patuxent .....	Unrestricted	0.25 NM radius.
Sumang Drop Zone .....	20.3 NM; 286° Baltimore .....	3,000 AGL	0.4 NM radius. Weekends
Tewey Drop Zone .....	24 NM; 023° Baltimore .....	10,000 AGL	1 NM radius. Weekends
Unity Drop Zone .....	20 NM; 292° Baltimore .....	3,000 AGL	0.4 NM; radius. Weekends
<b>MASSACHUSETTS</b>			
(c) Ft. Devens, Turner Drop Zone .....	18 NM; 115° Gardner .....	4,000 AGL	.5 NM radius. Daily SR-SS (occasionally nights) (occasionally to 20,000').
Marston Mills .....	20 NM; 045° Marthas Vineyard ..	10,000	1 NM radius 0700-SS daily
(c) Montague, Turners Falls Arpt .....	18 NM; 237° Keene .....	12,500 AGL	5 NM radius. SR-SS daily.
Natick Laboratory Sudbury .....	21 NM; 295° Boston .....	4,000 AGL	0.25 NM radius. 0800-1700 Mon-Fri

# PARACHUTE JUMPING AREAS

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LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
(c) Orange Muni Arpt .....	10 NM; 292° Gardner .....	14,000	1 NM radius. Thu-Sun and holidays. SR-one hr after SS. Boston Center 123.75
(c) Pepperell, Sports Center Arpt .....	13 NM; 233° Manchester .....	20,000 AGL	3 NM radius. Daily SR-SS frequently ngt ops.
<b>NEW JERSEY</b>			
(c) Belmar/Farmingdale, Monmouth Executive Arpt .....	7 NM; 170° Colts Neck .....	13,500	3 NM radius. SR-SS Daily.
(c) Chatsworth, Coyle Fld .....	1 NM; 130° Coyle .....	2,000 AGL	Continuous. Heavy equip and paratroopers
(c) Cross Keys .....	10 NM; 355° Cedar Lake .....	14,000	1.5 NM radius. Daily SR-SS.
(c) Lakehurst NAES (Maxfield Fld) .....	0.9 NM; 280° Navy Lakehurst	12,500	0.3 NM radius. Daily SR-SS. Cargo drops ngts 2000' and below
(c) Sussex .....	TACAN .....	15,000	1.5 NM radius. Daily 0700-SS.
<b>NEW YORK</b>			
(c) Albion, Pine Hill Arpt .....	22 NM; 055° Buffalo .....	12,000'	2 NM radius. 0800-1 hour after SS, Wed thru Sun and holidays.
Arcade Tri-Co Arpt .....	24 NM; 162° Buffalo .....	10,000	5 NM radius. 0900-2100 SR-SS, Sat, Sun, and Wed.
Bloomingburg, Shan-Wan-Ga Valley Arpt	13 NM; 050° Huguenot .....	12,000	5 NM radius. 0900-SS daily.
(c) Calverton .....	1.5 NM; 150° Calverton .....	13,500	2 NM radius. Daily SR-SS.
(c) Duaneburg Arpt .....	14 NM; 280° Albany .....	13,000	3 NM radius. SR-SS daily.
(c) East Moriches, Spadaro Arpt .....	7 NM; 170° Calverton .....	14,000	1 NM radius, 0800-SS Sat and Sun. 1600-SS Wed.
Fort Drum .....	23 NM; 060° Watertown .....	1,000 AGL	1 NM radius. SR-SS Mon-Fri.
Gardiner Arpt .....	15 NM; 284° Kingston .....	14,500	4 NM radius. Daily SR-SS.
Hamilton Muni Arpt .....	13 NM; 085° Georgetown .....	10,000 AGL	5 NM radius. Weekends.
(c) Java .....	21 NM; 157° Buffalo .....	13,000	5 NM radius. Daily SR-SS, occasionally til 2400
Johnstown, Fulco Arpt .....	27 NM; 315° Albany .....	15,000 AGL	3 NM radius. SR-SS Fri, Sat, Sun & holidays. Occasionally other days.
Kirkwood Arpk .....	18 NM; 130° Binghamton .....	12,000	5 NM radius. 1000-SS Sat & Sun.
(c) Lexington-Prattville, Maben Arpt .....	26 NM; 089° De Lancey .....	22,000	3 NM radius. SR-SS daily.
Newfane, Hollands Intl Arpt .....	21 NM; 353° Buffalo .....	18,000	5 NM radius. SR-SS daily; occasional ngts.
New Paltz, Stanton Arpt .....	15NM; 301° Kingston .....	14,000	3NM radius. Sat, Sun and holidays SR-SS, occasional ngts and other days.
(c) Ovid Arpt .....	18 NM; 313° Ithaca .....	13,500	2 NM radius. 0600-2400 daily.
(c) Quaker Street, Knox Arpt .....	15 NM; 280° Albany .....	14,000	3 NM radius. Daily SR-2400.
Rhinebeck, Old Rhinebeck Arpt .....	19 NM; 323° Pawling .....	4,900	2 NM radius. SR-SS Sat-Sun Jun 15-Oct 15.
(c) Scotia, Mohawk Valley .....	12 NM/318° Albany .....	12,000	5 NM radius. 0800-2400 daily.
Stormville Arpt .....	13NM; 215° Pawling .....	13,000 AGL	Daily, SR-SS.
(c) Verona, Curtis Arpt .....	21 NM; 304° Utica .....	10,000	5 NM radius. SR-SS daily Apr 1-Nov 30.
(c) Wallkill .....	25 NM; 062° Huguenot .....	14,500 AGL	1 NM radius. Daily 1200-0200.
West Bloomfield, Fort Hill Arpt .....	9 NM; 070° Geneseo .....	15,000	1200-1 hr after SS Wed-Fri; 0800-1 hr after SS Sat, Sun & holidays; occasional ngt till 2400.
Westhampton Beach, Francis S Gabreski Arpt. ....	10NM; 130° Calverton .....	13,000' AGL	1NM radius. Tue thru Fri 1000-1400 13,000' to sfc and 1400-2200 8,000' to sfc.
(c) West Point .....	22 NM; 112° Huguenot .....	10,000	2 NM radius. Weekdays 1200-SS, weekends, occasionally.



LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
<b>PENNSYLVANIA</b>			
Bethel, Grimes Arpt.....	16 NM; 112° Ravine.....	11,000	5 NM radius. SR-SS daily.
(c) Burgettstown, Starveggi Drop Zone..	9 NM; 042° Wheeling WV.....	2000 AGL	1 NM radius. Tue-Thur 1030-2200; occasionally (by notam) Fri-Sun 0700-1800.
(c) Chambersburg Franklin Co Rgnl Arpt	14NM; 087° St Thomas.....	15,000 AGL	2NM radius. SR-SS daily.
Connellsville Arpt .....	14 NM; 272° Indian Head .....	15,000	4NM radius. Mar-Nov. Fri-Sun SR SS.
Culmerville Arpt.....	22 NM; 125° Ellwood City .....	11,500 AGL	Daily SR-SS
Doylestown.....	8 NM; 303° Yardley.....	12,500	Sat and Sun SR-SS
East Stroudsburg, Stroudsburg-Pocono Arpt .....	13.4 NM; 291° Stillwater.....	14,500	2.5 NM radius. 0600-2200 daily.
(c) Fort Indiantown Gap-Muir AAF, Cold Steel Drop Zone .....	6.7 NM; 172° Ravine.....	800-2000 AGL	By NOTAM only. Military use. 5 NM radius.
(c) Freedom, Kindelberger Landing Strip	8.5 NM; 175° Ellwood City .....	14,500	3 NM radius. Weekends and holidays SR-SS, Wed 1600-SS, and occasional ngts.
Freefall Oz Arpt .....	14 NM; 252° Wellsville.....	12,500	5 NM radius. Wed-Sun 1300-2359.
(c) Germansville, Flying M Aerodrome ...	9 NM; 003° East Texas.....	14,000	1 NM radius. 0900-SS daily.
(c) Grove City Arpt .....	19.3 NM; 011° Ellwood City .....	15,000	3 NM radius. 0800-1900 EST, 0900-2230 EDT daily.
(c) Hazleton Muni Arpt .....	6 NM; 081° Hazleton.....	14,500	SR-SS weekends and holidays; 1500-SS weekdays
(c) Jeannette, Greensburg Jeannette Rgnl .....	19 NM; 089° Allegheny.....	12,000	1 NM radius. 1 Apr-31 Oct, Wed 1700-2100, Sat/Sun 1000-2100.
Jersey Shore, Hinaman Acres Arpt .....	23 NM; 240° Williamsport.....	13,000	Tue and Thur 1600-SS; Sat and Sun 0800-SS.
Littlestown, Kingsdale Airpark .....	13 NM; 345° Westminster .....	10,500	2 NM radius. 0900-2000 daily.
Meadville, Port Meadville .....	19 NM; 311° Franklin .....	12,500	Weekends SR-SS.
(c) Mt. Joy/Marietta, Donegal Springs Airpark .....	12 NM; 272° Lancaster .....	15,000	2 NM radius. SR-SS daily.
North East, Moorhead Arpk.....	21 NM; 065° Erie.....	12,000	5 mi radius. Extensive skydiving activities 1600-2100 weekdays and 0900-2100 weekends from surface to 12,000 ft MSL.
(c) Perkasié, Pennridge Arpt .....	15.9 NM; 060° Pottstown .....	14,500	5 NM radius. SR-SS daily, nights by NOTAM.
(c) Tunkhannock, Skyhaven Arpt.....	19 NM; 333° Wilkes-Barre.....	13,500 AGL	5 NM radius. SR-SS daily.
(c) Worthington, J.T. Willie Arpt .....	25 NM; 098° Ellwood City .....	14,000	1 NM radius. Weekends and holidays SR-SS, Fri 2200-SS, occasional ngts.
<b>RHODE ISLAND</b>			
Greene, Riconn Arpt .....	15 NM; 060° Norwich .....	12,500	Daily SR-SS.
(c) Newport State.....	13.3 NM; 164° Providence .....	10,000	1 NM radius. SR-SS daily Apr 1-Nov 30.
(c) Pawtucket, North Central State Arpt	12 NM; 001° Providence.....	13,000	3 NM radius. 0800-1 hour after SS daily. Mar 27-Dec 1.
<b>VERMONT</b>			
(c) Addison, Ass-Pirin Acres Arpt.....	21 NM; 219° Burlington .....	12,000	5 NM radius. SR-SS daily. Frequent night jumps.
Shelburne Arpt .....	3 NM; 240° Burlington .....	15,000	2 NM radius. Daily SR-SS.
<b>VIRGINIA</b>			
(c) Blackstone, Allen C. Perkinson/ BAAF .....	16 NM; 355° Lawrenceville .....	12,500 AGL	1 NM radius. Daily.
Forest, New London Arpt .....	5 NM; 274° Lynchburg.....	11,000	Daily SR-SS.
(c) Fort A. P. Hill Bowling Green Drop Zone .....	12 NM; 192° Brooke .....	12,000 AGL	1 NM radius. Continuously. Frequent night drops.
(c) Fort Lee .....	12 NM; 262° Hopewell .....	2,500 AGL	0.5 NM radius. Daily.
(c) Fort Pickett Dove Drop Zone .....	19 NM; 009° Lawrenceville .....	12,500 AGL	Drop Zone 1500 yards by 1000 yards. Daily.
(c) Louisa Co/Freeman Fld .....	8.6 NM; 097° Gordonsville.....	15,000	3 NM radius. 0800-dusk.

# PARACHUTE JUMPING AREAS

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LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
Moneta, Smith Mountain Lake Arpt .....	19.2 NM; 246° Lynchburg .....	13,500	3 NM radius. SR-SS Fri, Sat, Sun, and holidays.
(c) Norfolk Intl Arpt .....	8.5 NM; 085° Norfolk .....	13,000	Mon-Fri during daylight hrs.
Oceana NAS .....	1.0 NM; 228° Oceana .....	12,500	Sat and Sun 0800-1200
(c) Orange Co Arpt .....	14.9 NM; 026° Gordonsville .....	15,000	3 NM radius. Daily SR-SS, frequently ngt ops.
(c) Quantico .....	11.5 NM; 349° Brooke .....	10,000	1 NM radius unscheduled weekends.
(c) Somerville, Hartwood Arpt .....	15 NM; 137° Casanova .....	13,000	2 NM radius. Weekends, holidays, occasionally other weekdays summer months.
(c) Suffolk Executive Arpt .....	20 NM; 104° Franklin .....	13,500	5 NM radius. SR-SS daily.
Warrenton, Flying Circus Aerodrome ....	8.5 NM; 132° Casanova .....	7,000	Sat/Sun, June 7-Oct 25, 1000-1959.
Waynesboro, Eagle's Nest Arpt .....	13 NM; 042° Montebello .....	10,000	1300-SS daily.
(c) West Point, Middle Peninsula Rgnl .....	4.4 NM; 340° Harcum .....	14,000	SR-SS weekends and holidays.
<b>WEST VIRGINIA</b>			
(c) Arthurdale, Titus Field .....	5 NM; 175° Morgantown .....	15,000 AGL	1 NM radius. Daily 0900-2100.
Buckhannon-Upshur Co .....	9 NM; 300° Elkins .....	15,000	1 NM radius. Weekdays and holidays
Huntington, Leann Drop Zone .....	15 NM; 230° Henderson .....	10,000 AGL	0.3 NM radius. Weekends.
Huntington, Debra Drop Zone .....	5 NM; 120° Henderson .....	10,000 AGL	0.5 NM radius. Weekends.
Morgantown, Bacon Drop Zone .....	5 NM; 150° Morgantown .....	10,000 AGL	0.5 NM radius. Weekends.
Morgantown, Cider Drop Zone .....	17 NM; 180° Morgantown .....	12,500 AGL	0.3 NM radius. Weekends.
Morgantown, Dawson AAF .....	12 NM; 126° Morgantown .....	10,000 AGL	0.3 NM radius. Weekends.
Morgantown, Doubt Drop Zone .....	12 NM; 140° Morgantown .....	12,500 AGL	1 NM radius. Weekends.
Morgantown, Float Drop Zone .....	13 NM; 110° Morgantown .....	12,500 AGL	0.5 NM radius. Weekends.
Morgantown, Guide Drop Zone .....	13 NM; 080° Morgantown .....	12,500 AGL	0.5 NM radius. Weekends.
Morgantown, Melon Drop Zone .....	13 NM; 097° Morgantown .....	12,500 AGL	0.5 NM radius. Weekends.
Morgantown, Piker Drop Zone .....	20 NM; 135° Morgantown .....	12,500 AGL	0.3 NM radius. Weekends.
Ravenswood, Jackson Co Arpt .....	41 NM; 215° Parkersburg .....	12,500 AGL	1000-SS Weekends.
Ripley, Evans Drop Zone .....	12 NM; 070° Henderson .....	12,000	1 NM radius. 0800-SS local, weekends.
Summersville Arpt .....	15 NM; 352° Rainelle .....	14,500	5 NM radius daily SR-SS.
Westover, Blue Horizon Drive-In .....	13 NM; 320° Morgantown .....	12,500	Weekends and holidays SR-SS.

The purpose of this bulletin is to provide major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical, VFR Terminal Area, and Helicopter Route Charts listed. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot, and major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain chart currency. The data is grouped by type and then by effective date. When a new edition of the Aeronautical Chart is published, the corrective tabulation will be removed from this bulletin. Inasmuch as this Bulletin provides major changes only, pilots should consult the airport listing in this directory for all new information. Users of U.S. World Aeronautical Charts (WAC) and U.S. Gulf Coast VFR Aeronautical Charts should consult the appropriate Sectional and VFR Terminal Area Charts for revisions.

Military Training Routes (MTRs) are shown on Sectional Aeronautical Charts, VFR Terminal Area, and Helicopter Route Charts. Only the route centerline, direction of flight and the route designator are shown — route widths and altitudes are not shown. Since these routes are subject to change every 56 days and the charts are reissued generally every 6 months, routes with a change in the alignment of the charted route centerline will be listed in this Aeronautical Chart Bulletin below. You are advised to contact the nearest FSS for route dimensions and current status for those routes affecting your flight.

## BALTIMORE-WASHINGTON HELICOPTER ROUTE CHART

8th Edition, 30 Jul 2009

### OBSTRUCTIONS

27 Aug 2009 – 22 Oct 2009 No Major Changes.

### AIRPORTS

27 Aug 2009 No Major Changes.

22 Oct 2009 Change CTAF 122.9 to 123.025 at PIER 7 heliport. 39°16'20"N, 76°34'18"W.

Delete BOLLING AFB heliport, 38°50'34"N, 77°00'58"W.

### NAVAIDS

27 Aug 2009 – 22 Oct 2009 No Major Changes.

### AIRSPACE

27 Aug 2009 – 22 Oct 2009 No Major Changes.

### SPECIAL USE AIRSPACE

27 Aug 2009 – 22 Oct 2009 No Major Changes.

### MILITARY TRAINING ROUTES

27 Aug 2009 – 22 Oct 2009 No Major Changes.

### MISCELLANEOUS

27 Aug 2009 – 22 Oct 2009 No Major Changes.

## BALTIMORE-WASHINGTON TERMINAL AREA CHART

79th Edition, 30 Jul 2009

### OBSTRUCTIONS

27 Aug 2009 – 22 Oct 2009 No Major Changes.

### AIRPORTS

27 Aug 2009 No Major Changes.

22 Oct 2009 Delete BOLLING AFB heliport, 38°50'34"N, 77°00'58"W.

### NAVAIDS

27 Aug 2009 – 22 Oct 2009 No Major Changes.

### AIRSPACE

27 Aug 2009 – 22 Oct 2009 No Major Changes.

### SPECIAL USE AIRSPACE

27 Aug 2009 – 22 Oct 2009 No Major Changes.

### MILITARY TRAINING ROUTES

27 Aug 2009 – 22 Oct 2009 No Major Changes.

### MISCELLANEOUS

27 Aug 2009 – 22 Oct 2009 No Major Changes.

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**BOSTON HELICOPTER ROUTE CHART****6th Edition, 20 Dec 2007****OBSTRUCTIONS****20 Dec 2007 – 22 Oct 2009** No Major Changes.**AIRPORTS****20 Dec 2007 – 10 Apr 2008** No Major Changes.**5 Jun 2008** Revise AMES HELIPORT position to, 42°37'53"N, 70°51'54"W.**31 Jul 2008 – 2 Jul 2009** No Major Changes.**27 Aug 2009** Revise MASS GENERAL heliport position to, 42°21'49"N, 71°04'08"W.**22 Oct 2009** No Major Changes.**NAVAIDS****20 Dec 2007 – 22 Oct 2009** No Major Changes.**AIRSPACE****20 Dec 2007 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****20 Dec 2007 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****20 Dec 2007 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****20 Dec 2007 – 22 Oct 2009** No Major Changes.

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**BOSTON TERMINAL AREA CHART****74th Edition, 7 May 2009****OBSTRUCTIONS****7 May 2009** No Major Changes.**2 Jul 2009** Add obst 320'MSL (292'AGL), 42°48'11"N, 70°52'51"W.**27 Aug 2009** Add obst 528'MSL (340'AGL)UC, 41°36'52"N, 71°15'05"W.**22 Oct 2009** No Major Changes.**AIRPORTS****7 May 2009 – 22 Oct 2009** No Major Changes.**NAVAIDS****7 May 2009 – 22 Oct 2009** No Major Changes.**AIRSPACE****7 May 2009 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****7 May 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****7 May 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****7 May 2009 – 22 Oct 2009** No Major Changes.

## CG-21 WORLD AERONAUTICAL CHART

### 40th Edition, 24 Sep 2009

**OBSTRUCTIONS**

**22 Oct 2009** Add obst 1348' MSL (600' AGL), 34°15'06"N, 84°59'12"W.  
Change obst from 312' MSL to 1312' MSL, 33°35'33"N, 083°58'31"W.

**AIRPORTS**

**22 Oct 2009** Change elevation from 191' to 1911' at Blairsville arpt, 34°51'16"N, 083°59'50"W.  
Change runway orientation to 01/19 at Halifax-Northhampton Co Rgnl arpt, 36°19'47"N, 077°38'07"W.

**NAVAIDS**

**22 Oct 2009** No Major Changes.

**AIRSPACE**

**22 Oct 2009** No Major Changes.

**SPECIAL USE AIRSPACE**

**22 Oct 2009** No Major Changes.

**MILITARY TRAINING ROUTES**

**22 Oct 2009** No Major Changes.

**MISCELLANEOUS**

**22 Oct 2009** No Major Changes.

## CINCINNATI SECTIONAL

### 82nd Edition, 2 Jul 2009

**OBSTRUCTIONS**

**2 Jul 2009** No Major Changes.

**27 Aug 2009** Add obst 1525' MSL (410' AGL) UC, 40°12'15"N, 82°35'03"W.

Add obst 2811' MSL (305' AGL) UC, 39°24'30"N, 79°21'41"W.

Add obst 1687' MSL (380' AGL) UC, 38°00'44"N, 82°10'09"W.

Add obst 1341' MSL (300' AGL) UC, 38°43'50"N, 81°22'53"W.

Add obst 3611' MSL (315' AGL) UC, 37°53'06"N, 80°46'24"W.

Add obst 1067' MSL (300' AGL) UC, 38°17'38"N, 82°11'57"W.

Add obst 1217' MSL (300' AGL) UC, 38°38'11"N, 81°23'43"W.

Add obst 1328' MSL (350' AGL) UC, 37°37'05"N, 84°15'43"W.

Add obst 1810' MSL (310' AGL) UC, 38°19'51"N, 79°03'36"W.

Add obst 2925' MSL (300' AGL) UC, 37°39'29"N, 80°57'29"W.

Add obst 2752' MSL (300' AGL) UC, 37°32'06"N, 80°55'20"W.

Add obst 1213' MSL (310' AGL) UC, 38°41'39"N, 83°37'34"W.

Add obst 1198' MSL (300' AGL) UC, 38°20'28"N, 82°03'56"W.

Add obst 1242' MSL (310' AGL) UC, 39°37'20"N, 82°14'33"W.

Add obst 1680' MSL (550' AGL) UC, 39°53'38"N, 79°55'58"W.

**22 Oct 2009** Add obst 1224' MSL (300' AGL) UC, 39°44'58"N, 84°23'43"W.

Add obst 1358' MSL (312' AGL) UC, 39°00'37"N, 83°34'13"W.

Add obst 1629' MSL (285' AGL) UC, 36°04'48"N, 84°31'00"W.

Add obst 3434' MSL (270' AGL) UC, 36°43'42"N, 80°27'08"W.

Add obst 1674' MSL (554' AGL) UC, 39°42'28"N, 79°57'32"W.

Add obst 1403' MSL (297' AGL) UC, 38°48'04"N, 82°57'44"W.

Add obst 3226' MSL (400' AGL) UC, 40°01'35"N, 78°48'07"W.

Add obst 3190' MSL (400' AGL) UC, 40°03'28"N, 78°48'15"W.

**AIRPORTS**

**2 Jul 2009** No Major Changes.

**27 Aug 2009** Change CTAF 122.9 to 123.05 at MCCREARY arpt, 36°41'43"N, 84°23'29"W.

**22 Oct 2009** Delete POWELL arpt, 36°02'40"N, 84°00'15"W.

**NAVAIDS**

**2 Jul 2009 – 27 Aug 2009** No Major Changes.

**22 Oct 2009** Delete LOUISA NDB, 38°01'13"N, 77°51'32"W.

**AIRSPACE**

**2 Jul 2009** No Major Changes.

**27 Aug 2009** Revise WAVERLY, OH Class E. That airspace extending upward from 700 feet above the surface within a 9.9-mile radius of Pike County Airport.  
Delete DAYTON Class C freq 127.65.

Add DAYTON Class C freqs 118.425 and 127.225.

Revise DAYTON Class C freq from 316.7 to 352.05.

**22 Oct 2009** No Major Changes.

**SPECIAL USE AIRSPACE**

**2 Jul 2009 – 22 Oct 2009** No Major Changes.

**MILITARY TRAINING ROUTES**

**2 Jul 2009 – 22 Oct 2009** No Major Changes.

**MISCELLANEOUS**

**2 Jul 2009 – 22 Oct 2009** No Major Changes.

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**DETROIT SECTIONAL**  
**79th Edition, 24 Sep 2009****OBSTRUCTIONS**

**22 Oct 2009** Add obst 1193' MSL (285' AGL) UC, 41°32'32"N, 80°51'34"W.

Add obst 2540' MSL (260' AGL) UC, 41°53'03"N, 78°37'09"W.

Add obst 956' MSL (203' AGL), 42°41'02"N, 78°54'26"W.

Add obst 702' MSL (204' AGL), 42°57'23"N, 76°59'42"W.

Add obst 3226' MSL (400' AGL) UC, 40°01'35"N, 78°48'07"W.

Add obst 1001' MSL (394' AGL), 42°16'06"N, 82°16'30"W.

**AIRPORTS**

**22 Oct 2009** Delete ZEITLER arpt, 43°29'24"N, 84°21'54"W.

Delete PEWANOGOWINK-BANKS arpt, 43°11'10"N, 83°54'04"W.

Delete SHENANDOAH AIRPARK arpt, 40°55'12"N, 82°28'44"W.

Delete MAYES arpt, 43°14'27"N, 84°52'48"W.

**NAVAIDS**

**22 Oct 2009** No Major Changes.

**AIRSPACE**

**22 Oct 2009** Revise MANSFIELD, OH class E airspace. That airspace extending upward from 700 feet above the surface within a 6.9-mile radius of Mansfield Lahm Regional Airport and within a 6.3-mile radius of Galion Municipal Airport, and within 6.3-mile radius of Shelby Community Airport, and within a 6.3-mile radius of Willard Airport, and within 4 miles each side of the 137° bearing from Mansfield Lahm Regional Airport extending from the 6.9-mile radius to 11.1 miles southeast of the airport, and within 4 miles each side of the 317° bearing from Mansfield Lahm Regional Airport extending from the 6.9-mile radius to 10.7 miles northwest of the airport, and within 6.1 miles each side of the Mansfield VORTAC 307° radial extending from the 6.9-mile radius to 13.3 miles northwest of the VORTAC, and within 4.4 miles each side of the Mansfield VORTAC 130° radial extending from the 6.9-mile radius to 13.8 miles southeast of the VORTAC.

**SPECIAL USE AIRSPACE**

**22 Oct 2009** No Major Changes.

**MILITARY TRAINING ROUTES**

**22 Oct 2009** No Major Changes.

**MISCELLANEOUS**

**22 Oct 2009** No Major Changes.

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**HALIFAX SECTIONAL**  
**81st Edition, 27 Aug 2009**

**OBSTRUCTIONS**

**27 Aug 2009** No Major Changes.

**22 Oct 2009** Add obst 643' MSL (250' AGL), 45°02'37"N, 63°51'27"W.

Add obst 995' MSL (348' AGL), 45°24'21"N, 62°12'11"W.

**AIRPORTS**

**27 Aug 2009** No Major Changes.

**22 Oct 2009** Delete GRAND RIVER ARPT, 46°28'51"N, 63°57'10"W.

**NAVAIDS**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

**AIRSPACE**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

**SPECIAL USE AIRSPACE**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

**MILITARY TRAINING ROUTES**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

**MISCELLANEOUS**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

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**MONTREAL SECTIONAL**  
**81st Edition, 27 Aug 2009**

**OBSTRUCTIONS**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

**AIRPORTS**

**27 Aug 2009** No Major Changes.

**22 Oct 2009** Delete CHAMBLY arpt, 45°24'04"N, 73°17'43"W.

**NAVAIDS**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

**AIRSPACE**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

**SPECIAL USE AIRSPACE**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

**MILITARY TRAINING ROUTES**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

**MISCELLANEOUS**

**27 Aug 2009 – 22 Oct 2009** No Major Changes.

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## NEW YORK HELICOPTER ROUTE CHART

7th Edition, 8 May 2008

**OBSTRUCTIONS****5 Jun 2008 – 25 Sep 2008** No Major Changes.**20 Nov 2008** Change obst from 311' MSL (300' AGL) to 342' MSL (333' AGL), 40°41'22"N, 74°09'33"W.

Change obst from 288' MSL (278' AGL) to 410' MSL (400' AGL), 40°41'03"N, 74°09'19"W.

Change obst from 288' MSL (278' AGL) to 410' MSL (400' AGL), 40°40'21"N, 74°08'24"W.

Change obst from 288' MSL (278' AGL) to 410' MSL (400' AGL), 40°39'40"N, 74°08'52"W.

Change obst from 288' MSL (278' AGL) to 410' MSL (400' AGL), 40°40'54"N, 74°09'06"W.

Add obst 410' MSL (400' AGL), 40°41'07"N, 74°09'26"W.

Add obst 410' MSL (400' AGL), 40°39'36"N, 74°09'00"W.

Add obst 278' MSL (273' AGL), 40°38'35"N, 74°11'13"W.

**15 Jan 2009** No Major Changes.**12 Mar 2009** Add obst 699' MSL (487' AGL) UC, 41°01'59"N, 73°46'12"W.

Add obst 699' MSL (487' AGL) UC, 41°01'57"N, 73°46'00"W.

**7 May 2009 – 2 Jul 2009** No Major Changes.**27 Aug 2009** Add obst 1806' MSL (1792' AGL) UC, 40°42'47"N, 74°00'47"W.**22 Oct 2009** Add obst 895' MSL (867' AGL) UC, 40°42'39"N, 74°00'20"W.**AIRPORTS****5 Jun 2008** Revise FREEPORT HELIPORT position to, 40°39'02"N, 73°34'04"W.

Revise PRINT PAD HELIPORT position to, 40°39'12"N, 73°34'25"W.

Delete AT&amp;T HELIPORT, 40°40'07"N, 74°24'38"W.

Delete OVAL PARK HELIPORT, 40°45'36"N, 74°12'05"W.

Delete EDISON HELIPORT, 40°31'02"N, 74°20'44"W.

Delete EDISON SQUARE HELIPORT, 40°31'23"N, 74°23'30"W.

Delete FRIGIDAIRE HELIPORT, 40°31'36"N, 74°22'55"W.

Delete KENNEDY STADIUM HELIPORT, 40°44'50"N, 74°09'27"W.

Delete AMERICAN CYANAMID HELIPORT, 40°36'00"N, 74°11'58"W.

Delete NEWARK ACADEMY HELIPORT, 40°46'38"N, 74°21'30"W.

Delete PENSKE 2 HELIPORT, 40°53'02"N, 74°04'06"W.

Delete LAG HELIPORT, 40°57'19"N, 74°04'15"W.

Delete PARLIN EAST HELIPORT, 40°27'10"N, 74°18'46"W.

Delete CHILTON MEML HELIPORT, 40°57'28"N, 74°18'34"W.

Delete HERCULES HELIPORT, 40°27'07"N, 74°20'02"W.

Delete SETON HALL HELIPORT, 40°44'24"N, 74°14'54"W.

Delete ENZON SOUTH PLAINFIELD HELIPORT, 40°33'17"N, 74°25'11"W.

Delete RAVENS NEST HELIPORT, 40°41'25"N, 74°18'28"W.

Delete IFF R&amp;D HELIPORT, 40°26'25"N, 74°09'24"W.

Delete GRAPHIC SCANNING HELIPORT, 40°53'10"N, 73°59'28"W.

**31 Jul 2008 – 22 Oct 2009** No Major Changes.**NAVAIDS****5 Jun 2008 – 22 Oct 2009** No Major Changes.**AIRSPACE****5 Jun 2008 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****5 Jun 2008 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****5 Jun 2008 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****5 Jun 2008 – 2 Jul 2009** No Major Changes.**27 Aug 2009** Change MEF 1° to 2° in quadrant 40°30'-40°45'N, 74°00'-74°15'W.**22 Oct 2009** No Major Changes.



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**NEW YORK SECTIONAL**  
**79th Edition, 7 May 2009****OBSTRUCTIONS****7 May 2009** No Major Changes.**2 Jul 2009** Add obst 1035' MSL (228' AGL), 41°06'07"N, 75°00'47"W.

Add obst 2108' MSL (407' AGL) UC, 40°50'14"N, 76°12'58"W.

Add obst 2244' MSL (272' AGL) UC, 43°42'45"N, 75°37'24"W.

Add obst 2128' MSL (407' AGL) UC, 40°48'46"N, 76°18'28"W.

Add obst 320' MSL (292' AGL), 42°48'11"N, 70°52'51"W.

Add obst 2154' MSL (389' AGL) UC, 42°57'02"N, 75°32'13"W.

**27 Aug 2009** Add obst 2074' MSL (295' AGL) UC, 42°14'04"N, 73°04'12"W.

Add obst 1806' MSL (1792' AGL) UC, 40°42'47"N, 74°00'47"W.

Add obst 1102' MSL (250' AGL) UC, 40°34'04"N, 76°58'32"W.

Add obst 528' MSL (340' AGL) UC, 41°36'52"N, 71°15'05"W.

**22 Oct 2009** Add obst 2333' MSL (255' AGL) UC, 41°57'32"N, 075°01'45"W.

Add obst 868' MSL (261' AGL) UC, 43°11'12"N, 073°29'04"W.

**AIRPORTS****7 May 2009** No Major Changes.**2 Jul 2009** Delete POW-WOW seaplane base, 42°54'40"N, 71°02'02"W.

Delete FLYING H arpt, 43°41'12"N, 71°17'21"W.

Delete FAIR HAVEN arpt, 43°36'55"N, 73°16'28"W.

Delete BRADFORD arpt, 40°30'02"N, 74°57'21"W.

Delete SPOOKY NOOK heliport, 40°06'23"N, 76°25'24"W.

**27 Aug 2009** Delete MICHAEL AIRFIELD arpt, 43°10'54"N, 76°07'40"W.**22 Oct 2009** SYRACUSE SUBURBAN arpt closed, 43°15'54"N, 76°10'41"W.**NAVAIDS****7 May 2009 – 2 Jul 2009** No Major Changes.**27 Aug 2009** Shutdown HUMBOLT NDB, 40°59'18"N, 75°59'49"W.**22 Oct 2009** No Major Changes.**AIRSPACE****7 May 2009** No Major Changes.**2 Jul 2009** Revise BINGHAMTON, NY Class D airspace. That airspace extending upward from the surface to and including 4,100' MSL within a 4.3 mile radius of the Binghamton Regional/Edwin A. Link Field Airport. This Class D airspace area is effective during the specific days and times established in advance by a Notice to Airmen. The effective days and times will thereafter be continuously published in the Airport/Facility Directory.

Add BINGHAMTON, NY Class E airspace. That airspace extending upward from the surface of the Earth within a 4.3 mile radius of the Binghamton Regional/Edwin A. Link Field Airport and within 1.6 miles each side of the 070° bearing from the airport to 9.3 miles northeast of the airport and within 1.8 miles each side of the Binghamton VORTAC 067° bearing from the VORTAC to the 4.3 mile radius to the airport and within 1.8 miles each side of the Binghamton Regional/Edwin A. Link Field Airport ILS LOC SE course extending from the 4.3 mile radius of the airport to 1.8 miles SE of the SMITE LOM. This Class E Surface airspace area is effective during the specific days and times established in advance by a Notice to Airmen. The effective days and times will thereafter be continuously published in the Airport/Facility Directory.

Revise BINGHAMTON, NY Class E airspace. That airspace extending upward from the surface within 1.6 miles each side of the 070° bearing from the airport to 9.3 miles northeast of the airport and within 1.8 miles each side of the Binghamton VORTAC 067° bearing from the VORTAC to the 4.3 mile radius to the airport and within 1.8 miles each side of the Binghamton Regional/Edwin A. Link Field Airport ILS LOC SE course extending from the 4.3 mile radius of the airport to 1.8 miles SE of the SMITE LOM. This Class E Surface airspace area is effective during the specific days and times established in advance by a Notice to Airmen. The effective days and times will thereafter be continuously published in the Airport/Facility Directory.

**27 Aug 2009 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****7 May 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****7 May 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****7 May 2009 – 2 Jul 2009** No Major Changes.**27 Aug 2009** Change MEF 1<sup>5</sup> to 2<sup>0</sup> in quadrant 40°30'-41°00'N, 74°00'-74°30'W.**22 Oct 2009** No Major Changes.

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**NEW YORK TERMINAL AREA CHART****77th Edition, 7 May 2009****OBSTRUCTIONS****7 May 2009 – 2 Jul 2009** No Major Changes.**27 Aug 2009** Add obst 1806' MSL (1792' AGL) UC, 40°42'47"N, 74°00'47"W.**22 Oct 2009** Add obst 895' MSL (867' AGL) UC, 40°42'39"N, 74°00'20"W.**AIRPORTS****7 May 2009 – 22 Oct 2009** No Major Changes.**NAVAIDS****7 May 2009 – 22 Oct 2009** No Major Changes.**AIRSPACE****7 May 2009 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****7 May 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****7 May 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****7 May 2009 – 2 Jul 2009** No Major Changes.**27 Aug 2009** Change MEF 1<sup>1</sup> to 2<sup>0</sup> in quadrant 40°30'–40°45'N, 74°00'–74°15'W.**22 Oct 2009** No Major Changes.

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**PHILADELPHIA TERMINAL AREA CHART****70th Edition, 30 Jul 2009****OBSTRUCTIONS****27 Aug 2009 – 22 Oct 2009** No Major Changes.**AIRPORTS****27 Aug 2009 – 22 Oct 2009** No Major Changes.**NAVAIDS****27 Aug 2009 – 22 Oct 2009** No Major Changes.**AIRSPACE****27 Aug 2009 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****27 Aug 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****27 Aug 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****27 Aug 2009 – 22 Oct 2009** No Major Changes.

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**PITTSBURGH TERMINAL AREA CHART****72nd Edition, 24 Sep 2009****OBSTRUCTIONS****22 Oct 2009** No Major Changes.**AIRPORTS****22 Oct 2009** No Major Changes.**NAVAIDS****22 Oct 2009** No Major Changes.**AIRSPACE****22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****22 Oct 2009** No Major Changes.**MISCELLANEOUS****22 Oct 2009** No Major Changes.

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**WASHINGTON SECTIONAL****86th Edition, 30 Jul 2009****OBSTRUCTIONS****27 Aug 2009** No Major Changes.**22 Oct 2009** Add obst 588' MSL (421' AGL) UC, 37°35'09"N, 77°15'47"W.

Add obst 434' MSL (400' AGL) UC, 36°26'12"N, 76°43'25"W.

Add obst 3226' MSL (400' AGL) UC, 40°01'35"N, 78°48'07"W.

Add obst 369' MSL (309' AGL) UC, 37°24'37"N, 76°32'51"W.

**AIRPORTS****27 Aug 2009** No Major Changes.**22 Oct 2009** Delete BOLLING AFB heliport, 38°50'34"N, 77°00'58"W.**NAVAIDS****27 Aug 2009** No Major Changes.**22 Oct 2009** Delete LOUISA NDB, 38°01'14"N, 77°51'33"W.**AIRSPACE****27 Aug 2009 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****27 Aug 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****27 Aug 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****27 Aug 2009 – 22 Oct 2009** No Major Changes.

## SUPPLEMENTAL COMMUNICATION REFERENCE

Contained within this tabulation, and listed alphabetically by airport name, are all private-use airports charted on the U.S. IFR Enroute Low and High Altitude charts in the United States, having terminal approach and departure control facilities. Additionally, listed by country, are all Canadian and Mexican airports that appear on the U.S. IFR Enroute charts with approach and departure control services. All frequencies transmit and receive unless otherwise noted. Radials defining sectors are outbound from the facility.

## UNITED STATES

FACILITY NAME	CHART & PANEL
<b>Frankfort, IL (LL40)</b>	L-28H
Chicago App/Dep Con 133.1 285.6	
<b>Glasgow Industrial, MT (07MT)</b>	H-1E, 2F, L-13D
Salt Lake Center App/Dep Con 126.85 305.2	
<b>USAF Academy Bullseye Aux Airstrip, CO (C090)</b>	L-10F
ASOS 118.325	
<b>West Kentucky Airpark, KY (5KY3)</b>	L-16I
Memphis Center App/Dep Con 133.65 292.15	
<b>William P Gwinn, FL (06FA)</b>	H-8I, L-23C
Gwinn Tower 120.4 314.6 (Mon-Fri 1300-2100Z)	
Gnd Con 121.65 279.25	

## CANADA

FACILITY NAME	CHART & PANEL
<b>Abbotsford, BC (CYXX)</b>	H-1B, L-12F
ATIS 119.8 (1500-0700Z)	
Victoria Trml App/Dep Con 132.7 (Avbl on ground) 290.8	
Tower 119.4 (Inner) 121.0 (Outer) 295.0 (1500-0700Z) Gnd Con 121.8	
MF 119.4 295.0 (0700-1500Z) (Shape irregular to 4500')	
<b>Amos/Magny, QC (CYEY)</b>	H-11B
Montreal Center App/Dep Con 125.9	
<b>Atikokan Muni, ON (CYIB)</b>	L-14I
MF 122.3 (5 NM to 4500' No ground station)	
<b>Barrie-Orillia (Lake Simcoe Rgnl), ON (CNB9)</b>	H-11B, L-31D
AWOS 122.55 (Pvt)	
Toronto Center App/Dep Con 124.025	
<b>Bar River, ON (CPF2)</b>	L-31C
Toronto Center App/Dep Con 132.65	
<b>Bathurst, NB (CZBF)</b>	L-32J
Moncton Center App/Dep Con 134.25	
<b>Boundary Bay, BC (CZBB)</b>	H-1B, L-1E
ATIS 125.5 (1500-0700Z)	
Vancouver App/Dep Con 132.3 363.8	
Tower 118.1 (Inner) 127.6 (Outer) (1500-0700Z) Gnd Con 124.3	
MF 118.1 (0700-1500Z to 2000'. Vancouver Trml 125.2 above 2000'. Shape irregular to 2500'.)	
<b>Brampton, ON (CNC3)</b>	L-31D
Toronto Trml App/Dep Con 119.3 253.1	
<b>Brandon Muni, MB (CYBR)</b>	H-2H
Winnipeg Center App/Dep Con 132.25 285.4	
MF 122.1 (5 NM to 4000')	
<b>Brantford, ON (CYFD)</b>	L-31D
Toronto Trml App/Dep Con 128.27	
<b>Brockville-Thousand Islands Rgnl Tackaberry, ON (CNL3)</b>	L-32G
Montreal Center App/Dep Con 134.675	
<b>Bromont, QC (CZBM)</b>	L-32G
Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM to 3400')	
<b>Burlington Airpark, ON (CZBA)</b>	L-31D
Toronto Center App/Dep Con 119.3 253.1	
<b>Castlegar, BC (CYCG)</b>	H-1C
Vancouver Center App/Dep Con 134.2 227.3	
MF 122.1 (5 NM to 6500')	
<b>Centralia/James T. Fld Muni, ON (CYCE)</b>	H-10G, 11B, L-31D
Toronto Center App/Dep Con 135.30	
<b>Charlottetown, PE (CYYG)</b>	H-11E, L-32J
Moncton Center App/Dep Con 135.65 384.8 MF 118.0 (5 NM to 3200')	
<b>Chatham-Kent, ON (CNZ3)</b>	H-10G, L-30G
Cleveland Center App/Dep Con 132.25	

FACILITY NAME	CHART & PANEL
<b>Collingwood, ON (CNY3)</b> Toronto Center App/Dep Con 124.02	H-11B, L-31D
<b>Cornwall Rgnl, ON (CYCC)</b> Boston Center App/Dep Con 135.25 377.1	L-32G
<b>Cranbrook/Canadian Rockies Intl, BC (CYXC)</b> Vancouver Center App/Dep Con 133.6 MF 122.3 (5 NM to 6100')	H-1C
<b>Debert, NS (CCQ3)</b> Halifax Trml App/Dep Con 119.2	H-11E, L-32J
<b>Digby, NS (CYID)</b> Moncton Center App/Dep Con 123.9	L-32J
<b>Downsview, ON (CYZD)</b> Toronto Center App Con 133.4 Toronto Center Dep Con 133.4 MF 126.2 (3 NM to 1900')	H-11B, L-31E
<b>Drummondville, QC (CSC3)</b> Montreal Center App/Dep Con 132.35	L-32H
<b>Earlton (Timiskaming Rgnl), ON (CYXR)</b> MF 122.0 (5 NM to 3800') AWOS 128.6	H-11B
<b>Elliot Lake Muni, ON (CYEL)</b> Toronto Center App/Dep Con 135.4	L-31C
<b>Fort Frances Muni, ON (CYAG)</b> Minneapolis Center App/Dep Con 120.9	L-14H
<b>Fredericton Intl, NB (CYFC)</b> ATIS 127.55 Moncton Center App/Dep Con 124.3 135.5 270.8 Clnc Del 121.7 (Ltd hrs) MF 119.0 (5 NM to 3500')	H-11E, L-32I
<b>Goderich, ON (CYGD)</b> Toronto Center App/Dep 135.3 266.3	H-11B, L-31D
<b>Greenwood, NS (CYZX)</b> ATIS 128.85 244.3 (1100-0000Z‡) App/Dep Con 120.6 335.9 Tower 119.5 126.2 236.6 324.3 Gnd Con 133.75 289.4 Clnc Del 128.05 283.9	H-11E, L-32J
<b>Grimsby Air Park, ON (CNZ8)</b> Toronto Trml App/Dep Con 128.27 268.75 Tower 125.0 308.475	L-31E
<b>Halifax/Shearwater, NS (CYAW)</b> ATIS 129.175 (Ltd hrs) App/Dep Con 119.2 Tower 119.0 126.2 340.2 360.2 (Ltd hrs) Gnd Con 121.7 250.1	H-11E, L-32J
<b>Halifax/Stanfield Intl, NS (CYHZ)</b> ATIS 121.0 Moncton Center App/Dep Con 118.7 119.2 128.55 135.3 225.2 363.8 Tower 118.4 236.6 Gnd Con 121.9 275.8 Clnc Del 123.95 Apron Advisory 122.125	H-11E, L-32J
<b>Hamilton, ON (CYHM)</b> ATIS 128.1 Toronto Trml App/Dep Con 128.27 268.75 Tower 119.7 125.0 Gnd Con 121.6	H-10H, 11B, L-11B
<b>Kingston, ON (CYGK)</b> Montreal Center App/Dep Con 135.05 398.4 (0400-1115Z‡) MF 122.5 (1115-0400Z‡ 5 NM to 3300')	H-11C, L-31E, 32F
<b>Kitchener/Waterloo, ON (CYKF)</b> ATIS 125.1 (1200-0400Z‡) Toronto Trml App/Dep Con 128.275 Waterloo Tower 126.0 118.55 (1200-0400Z‡) Gnd Con 121.8 MF 126.0 (0400-1200Z‡ 5 NM to 4000')	H-11B, L-31D
<b>Lachute, QC (CSE4)</b> Montreal Center App Con 124.65 132.85 268.3 Montreal Center Dep Con 132.85 268.3	L-32G
<b>La Tuque, QC (CYLQ)</b> Montreal Center App/Dep Con 134.5	H-11C
<b>Langley, BC (CYNJ)</b> ATIS 124.5 (1630-0230Z, DT 1530-0330Z) Victoria Trml 132.7 290.8 Tower 119.0 (1630-0230Z, DT 1530-0330Z) Gnd Con 121.9 MF 119.0 (0230-1630Z, DT 0330-1530Z 3 NM to 1900')	L-1E

FACILITY NAME	CHART & PANEL
<b>Leamington, ON (CLM2)</b> Cleveland Center App/Dep Con 132.45	L-30F
<b>Lethbridge, AB (CYQL)</b> ATIS 124.4 (1300-0545Z‡) Edmonton Center App/Dep Con 132.75 265.2 MF 121.0 (5 NM to 6000')	H-1D
<b>Lindsay, ON (CNF4)</b> Toronto Center App/Dep 134.25	L-31E, L-32F
<b>Liverpool/South Shore Rgnl, NS (CYAU)</b> Moncton Center App/Dep Con 123.9	L-32J
<b>London, ON (CYXU)</b> ATIS 127.8 (1120-0345Z‡) Toronto Center App/Dep 135.3 135.625 Tower 119.4 125.65 (1120-0345Z‡) Gnd Con 121.9 MF 119.4 (0345-1120Z‡ 5 NM to 3000')	H-10G, 11B, L-30G, 31D
<b>Manitowaning/Manitoulin East Muni, ON (CYEM)</b> Toronto Center App/Dep 135.4 260.9	L-31C
<b>Maniwaki, QC (CYMW)</b> Montreal Center App/Dep Con 126.57	L-32G
<b>Mascouche, QC (CSK3)</b> MF 122.35 (5 NM to 2500'. No gnd station. Excluding the portion S of the N shore of Riviere des Milles-Iles and 1 NM around Lac Agile Mascouche arpt.)	L-32G
<b>Medicine Hat, AB (CYXH)</b> AWOS 124.875 (0345-1245Z‡) MF 122.2 (1245-0345Z‡ 5 NM to 5400')	H-1D
<b>Midland/Huronina, ON (CYEE)</b> Toronto Center App/Dep 124.025	L-31D
<b>Miramichi, NB (CYCH)</b> Moncton Center App/Dep Con 123.7	H-11E, L-32J
<b>Moncton/Greater Moncton Intl, NB (CYQM)</b> ATIS 128.65 App/Dep 124.4 Tower 120.8 236.6 Gnd Con 121.8 275.8 Apron Advisory 122.075	H-11E, L-32J
<b>Mont-Laurier, QC (CSD4)</b> Montreal Center App/Dep Con 126.57	L-32G
<b>Montreal Intl (Mirabel), QC (CYMX)</b> ATIS 125.7 Montreal Center App Con 124.65 132.85 268.3 Montreal Dep Con 132.85 MF 119.1 (7 NM shape irregular to 2000') VFR Advisory 134.15	H-11C, 12K, L-32G
<b>Montreal/Pierre Elliott Trudeau Intl, QC (CYUL)</b> ATIS 133.7 Montreal Trml App Con 118.9 124.65 126.9 132.85 268.3 Tower 119.9 267.1 Gnd Con 121.9 275.8 Clnc Del 125.6 Apron 122.075 Montreal Trml Dep Con 118.9 (SE-S-SW) 124.65 268.3 (W-NW-NE) VFR Advisory 134.15	H-11C, 12K, L-32G
<b>Montreal/St-Hubert, QC (CYHU)</b> ATIS 124.9 (Apr-Oct 1045-0500Z‡, Nov-Mar 1045-0400Z) AWOS 124.9 Montreal Center App/Dep Con 125.15 268.3 St. Hubert Tower 118.4 (Apr-Oct 1045-0500Z‡, Nov-Mar 1045-0400Z) Gnd Con 126.4 MF 118.4 (Apr-Oct 0500-1045Z‡, Nov-Mar 0400-1045Z 5 NM shape irregular to 2500') VFR Advisory 134.15	H-11C, L-32G
<b>Muskoka, ON (CYQA)</b> AWOS 124.575 MF 122.3 (5 NM to 3900')	H-11B, L-31D
<b>Nanaimo, BC (CYCD)</b> Victoria Trml App/Dep 120.8 133.95 252.3 MF 122.1 1330-0530Z‡ (5 NM to 2500')	H-1B, L-1E
<b>North Bay, ON (CYYB)</b> ATIS 124.9 (1130-0300Z‡) Toronto Center App/Dep 121.225 127.25 MF 118.3 (1130-0330Z‡ 7 NM to 5000')	H-11B, L31D
<b>Oshawa, ON (CYOO)</b> ATIS 125.675 (1130-0330Z‡) Toronto Trml App Con 133.4 Tower 120.1 (1130-0330Z‡) Gnd Con 118.4 Toronto Trml Dep Con 133.4 MF 120.1 (0330-1130Z‡ 5 NM to 3000')	L-31E

FACILITY NAME	CHART & PANEL
<b>Ottawa/Carp, ON (CYRP)</b> ATIS 121.15 Ottawa Trml App/Dep Con 128.175 252.5	L-31E, 32F
<b>Ottawa/Gatineau, QC (CYND)</b> Ottawa Trml App/Dep Con 127.7 128.175 252.5 MF 122.3 (5 NM shape irregular to 2500') VFR Advisory Ottawa Trml 127.7	H-11C, L-32G
<b>Ottawa/MacDonald-Cartier Intl, ON (CYOW)</b> ATIS 121.15 Ottawa App Con 135.15 Tower 118.8 120.1 341.3 Gnd Con 121.9 Clnc Del 119.4 Ottawa Dep Con 128.175	L-11C
<b>Owen Sound/Billy Bishop Rgnl, ON (CYOS)</b> Toronto Center App/Dep 132.575 290.6	L-31D
<b>Pelee Island, ON (CYPT)</b> Cleveland Center App/Dep Con 126.35 360.0	L-30F
<b>Pembroke, ON (CYTA)</b> Montreal Center App/Dep Con 135.2 Petawawa Advisory 126.4 250.1 (Mon-Fri 1300-2130Z†, OT PPR)	H-11C, L-31E, 32F
<b>Penticton, BC (CYYF)</b> Vancouver Center App/Dep Con 133.5 351.3 MF 118.5 (5 NM to 4100')	H-1B
<b>Peterborough, ON (CYPQ)</b> AWOS 126.925 Toronto Center App/Dep 134.25	H-11B, L-31E, 32F
<b>Pincher Creek, AB (CZPC)</b> Edmonton Center App/Dep Con 132.75 265.2	H-1D
<b>Pitt Meadows, BC (CYPK)</b> ATIS 125.0 (1500-0700Z†) Vancouver Center App Con 128.6 352.7 (Outer) Pitt Tower 126.3 (1500-0700Z†) Gnd Con 123.8 Vancouver Center Dep Con 132.3 363.8 (South) MF 126.3 (0700-1500Z†) (3NM to 2500')	L-1E
<b>Quebec/Jean Lesage Intl, QC (CYQB)</b> ATIS 134.6 Montreal Center App/Dep Con 124.0 127.85 135.025 270.9 322.8 (185.65 Quebec Twr VFR acft at or below 3000') Tower 118.65 236.6 Gnd Con 121.9 250.0	H-11D, L-32H
<b>Riviere Du Loup, QC (CYRI)</b> AWOS 122.025 (Pvt) Montreal Center App/Dep Con 125.1 299.6	H-11D
<b>Rouyn Noranda, QC (CYUY)</b> Montreal Center App/Dep Con 125.9 MF 122.2 (5 NM to 4000')	H-11B
<b>Saint John, NB (CYSJ)</b> Moncton Center App/Dep Con 124.3 135.5 270.8 MF 118.5 (5 NM to 3400')	H-11E, L-32J
<b>Sarnia (Chris Hadfield), ON (CYZR)</b> Toronto Center 134.375	H-10G, 11B, L-30F
<b>Sault Ste Marie, ON (CYAM)</b> ATIS 133.05 (1300-0100Z†) Toronto Center App/Dep Con 132.65 344.5 Tower 118.8 (1300-0100Z†) Gnd Con 121.7 MF 118.8 (0100-1300Z† 5 NM irregular shape to 3000')	H-2K, L-31B
<b>Sherbrooke, QC (CYAM)</b> AWOS 126.25 Montreal Center App/Dep Con 132.55 MF 123.5 (Ltd hrs 5 NM to 3800')	H-11D, L-32H
<b>South Renfrew Muni, ON (CNP3)</b> Montreal Center App/Dep 124.275	L-31E, 32F
<b>Southport, MB (CYPG)</b> ATIS 120.85 (Mon-Fri 1400-2300Z† except holidays) Tower 126.2 384.2 (Mon-Fri 1400-2300Z† except holidays) Gnd Con 121.7 275.8	H-2H

FACILITY NAME	CHART & PANEL
<b>Springwater Barrie Airpark, ON (CNA3)</b> Toronto Center App/Dep Con 124.025	L-31D
<b>St. Catharines/Niagara District, ON (CYSN)</b> ATIS 128.525 (1215-0200Z‡) Toronto Trml App/Dep Con 133.4 253.1 MF 123.25 (1215-0200Z‡ 5 NM to 3300')	H-10H, 11B, L-31E
<b>St. Frederic, QC (CSZ4)</b> Montreal Center App/Dep Con 135.025 270.9	L-32H
<b>St. Georges, QC (CYSG)</b> Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM 3900' ASL)	H-32H, L-11D
<b>St. Jean, QC (CYJN)</b> Montreal Center App/Dep Con 125.15 268.3 Tower 118.2 (Apr-Oct 1230-0230Z‡ Nov-Mar 1300-0200Z‡) Gnd Con 121.7	L-32G
<b>Sudbury, ON (CYSB)</b> ATIS 127.4 Toronto Center App/Dep Con 135.5 MF 125.5 (7 NM to 4000')	H-31B, 10G, L-31D
<b>Summerside, PE (CYSU)</b> AWOS 122.55 (Pvt) Moncton Center App/Dep Con 124.4 384.8	H-11E, L-32J
<b>Thunder Bay, ON (CYQT)</b> ATIS 128.8 (1100-0400Z‡) Winnipeg Center App/Dep Con 132.125 (0400-1100Z‡) Tower 118.1 (1100-0400Z‡) Gnd Con 121.9 App/Dep 119.2 MF 118.1 (0400-1100Z‡ 5 NM to 4000')	H-2J, L-14J
<b>Timmins, ON (CYTS)</b> ATIS 124.95 (1000-0500Z‡) Toronto Center App/Dep Con 128.3 226.3 MF 122.3 (5 NM to 4000')	H-11B
<b>Toronto/Buttonville Muni, ON (CYKZ)</b> ATIS 127.1 (1200-0400Z‡) Toronto Center App Con 133.4 Toronto Center Dep Con 133.4 Tower 124.8 119.9 (1200-0400Z‡) Gnd Con 121.8 MF 124.8 (0400-1200Z‡ No gnd station. 5 NM shape irregular to below 2500')	L-31E
<b>Toronto/City Centre, ON (CYTZ)</b> ATIS 133.6 (1130-0400Z‡) App Con 133.4 Dep Con 133.4 Tower 118.2 119.2 226.5 (1130-0400Z‡) Gnd Con 121.7	L-31E
<b>Toronto/Lester B Pearson Intl, ON (CYYZ)</b> ATIS 120.825 App Con 124.475 125.4 132.8 Dep Con 127.575 128.8 Tower 118.35 118.7 Gnd Con 118.0 119.1 121.65 121.9 Clnc Del 121.3 (1200-0400Z‡) VFR Advisory 119.3 133.4	H-11B, L-31D
<b>Trenton, ON (CYTR)</b> ATIS 135.45 257.7 App/Dep Con 128.4 324.3 Tower 128.7 236.6 Gnd Con 121.9 275.8 Clnc Del 124.35 286.4	H-11C, L-31E, 32F
<b>Trenton/Mountain View, ON (CPZ3)</b> Trenton Mil Advisory 268.0	H-11C, L-31E, 32F
<b>Trois-Rivieres, QC (CYRQ)</b> Montreal Center App/Dep Con 128.225 229.2 MF 123.0 (5 NM to 3200')	H-11C, L-32H



FACILITY NAME	CHART & PANEL
<b>Val-D'or, QC (CYVO)</b> Montreal Center App/Dep Con 125.9 308.3 MF 118.5 (1030-0325Z± 5 NM to 4000')	H-11B
<b>Vancouver Intl, BC (CYVR)</b> ATIS 124.6 124.75 App Con 128.6 128.17 352.7 (Outer) 133.1 134.225 352.7 (Inner) Dep Con 126.125 (north) 132.3 (south) 363.8 Tower 118.7 (south) 119.55 (north) VFR 124.0 125.65 226.5 236.6 Gnd Con 121.7 (south) 127.15 (north) 275.8 Clncl Del 121.4	H-1B, L-1E
<b>Victoria Intl, BC (CYYJ)</b> ATIS 118.8 (1400-0800Z±) App Con 125.95 308.4 Dep Con 133.85 308.4 Tower 119.1 (Outer) 119.7 (Inner) 239.6 Gnd Con 121.9 361.4 (1400-0800Z± OT ctc Kamloops 119.7) Clncl Del 126.4 (1400-0800Z±)	H-1B, L-1E
<b>Victoriaville, QC (CSR3)</b> Montreal Center App Con 132.35	L-32H
<b>Waterville/Kings Co Muni, NS (CCW3)</b> Greenwood Trml App/Dep Con 120.6 335.9 Greenwood Tower 119.5 324.3	L-32J
<b>Warton, ON (CYVW)</b> Toronto Center App/Dep Con 132.575 MF 122.2 (5 NM to 3700')	H-11B, L-31D
<b>Windsor, ON (CYQG)</b> ATIS 134.5 (1130-0330Z±) Detroit App/Dep Con 126.85 127.5 134.3 348.3 363.2 Tower 124.7 (1130-0330Z±) Gnd Con 121.7 MF 124.7 (0330-1130Z± 6 NM irregular shape to below 3000') VFR Advisory Detroit App Con 134.3	H-10G, L-8J
<b>Yarmouth, NS (CYQI)</b> Moncton Center App/Dep Con 123.9 368.5 MF 123.0 (5 NM to 3100')	H-11E, L-32I

## MEXICO

FACILITY NAME	CHART & PANEL
<b>Abraham Gonzalez Intl (MMCS)</b> Juarez App Con 119.9 Juarez Tower 118.9	H-4K, L-6F
<b>Del Norte Intl (MMAN)</b> ATIS 127.55 (1300-0300Z±) Monterrey App 119.75 120.4 Tower 118.6	H-7B, L-20G
<b>Durango Intl (MMD0)</b> ATIS 132.1 Tower 118.1 Durango Info 122.3	H-7A
<b>General Abelardo L Rodriguez Intl (MMTJ)</b> ATIS 127.9 Tijuana App Con 119.5 120.3 Tijuana Tower 118.1 Clncl Del 122.35 Tijuana Info 132.1	H-4H, L-4H
<b>General Lucio Blanco Intl (MMRX)</b> Reynosa App Con 118.8 Reynosa Tower 118.8	H-7B, L-20H
<b>General Mariano Escobedo Intl (MMMY)</b> ATIS 127.7 Monterrey App Con 119.75 120.4 Monterrey Tower 118.1 Gnd Con 121.9	H-7B, L-20G
<b>General R Fierro Villalobos Intl (MMCU)</b> ATIS 127.9 Chihuahua App Con 121.0 Chihuahua Tower 118.4	L-6I
<b>General Rodolfo Sanchez Taboada Intl (MMML)</b> ATIS 127.6 Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3	H-4H, L-4J, 5A

FACILITY NAME	CHART & PANEL
General Servando Canales (MMMA) Matamoros App Con 118.0 Matamoros Tower 118.0	H-7C, L-21A
Plan De Guadalupe Intl (MMIO) Saltillo App Con 127.4 Saltillo Tower 118.4	H-7B
Quetzalcoatl Intl (MMNL) Nuevo Laredo App Con 118.3 Nuevo Laredo Tower 118.3	H-7B, L-20G
Torreon Intl (MMTC) App Con 119.6 Tower 118.5	H-7A









In support of the Federal Aviation Administration's Runway Incursion Program, selected towered airport diagrams have been published in the Airport Diagram section of the A/FD. Diagrams will be listed alphabetically by associated city and airport name. Airport diagrams, depicting runway and taxiway configurations, will assist both VFR and IFR pilots in ground taxi operations. The airport diagrams in this publication are the same as those published in the U.S. Terminal Procedures Publications. For additional airport diagram legend information see the U.S. Terminal Procedures Publication.

NOTE: Some text data published under the individual airport in the front portion of the A/FD may be more current than the data published on the Airport Diagrams. The airport diagrams are updated only when significant changes occur.

## GENERAL INFORMATION





### PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Available pilot controlled lighting (PCL) systems are indicated as follows:

1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., , , .
2. Approach lighting systems that do not bear a system identification are indicated with a negative "0" beside the name. A star (★) indicates non-standard PCL, consult the individual airport in the front portion of the A/FD, e.g., ★. To activate lights use frequency indicated in the communication section of the chart with a  or the appropriate lighting system identification e.g., UNICOM 122.8 , , .

<u>KEY MIKE</u>	<u>FUNCTION</u>
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-off)

### CHART CURRENCY INFORMATION

FAA procedure amendment number  Amdt 11A 99365  Date of latest change  
 Orig 00365 

The Chart Date identifies the Julian date the chart was added to the volume or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest addition or change was first published.

The Procedure Amendment Number precedes the Chart Date, and changes any time instrument information (e.g., DH, MDA, approach routing, etc.) changes. Procedure changes also cause the Chart Date to change.

### MISCELLANEOUS

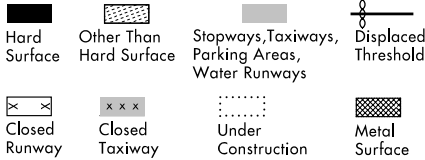
- ★ Indicates a non-continuously operating facility, see the individual airport in the front portion of the A/FD.
- # Indicates control tower temporarily closed UFN.

09071  
LEGEND

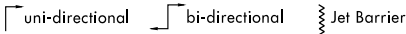
INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM

Runways



**ARRESTING GEAR:** Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.



**ARRESTING SYSTEM**

**REFERENCE FEATURES**

Buildings.....	■
Tanks.....	●
Obstructions.....	▲
Airport Beacon #.....	☆
Runway	
Radar Reflectors.....	▼
Control Tower #.....	■
Hot Spot.....	○

# When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.

A **D** symbol is shown to indicate runway declared distance information available, see appropriate A/FD, Alaska or Pacific Supplement for distance information.

Runway Weight Bearing Capacity/or PCN Pavement Classification Number is shown as a codified expression.

Refer to the appropriate Supplement/Directory for applicable codes e.g.,  
RWY 14-32 S75, T185, ST175, TT325  
PCN 80 F/D/X/U

Helicopter Alighting Areas

Negative Symbols used to identify Copter Procedures landing point.....

Runway Threshold elevation.....THRE 123

Runway TDZ elevation.....TDZE 123

Runway Slope.....0.3% DOWN

(shown when runway slope is greater than or equal to 0.3%)

NOTE:

Runway Slope measured to midpoint on runways 8000 feet or longer.

**U.S. Navy Optical Landing System (OLS)** "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Approach light symbols are shown in the Flight Information Handbook.

Airport diagram scales are variable.

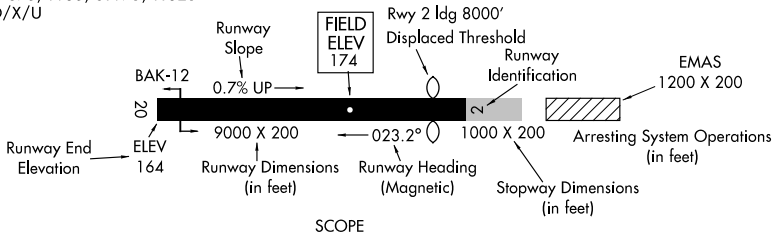
True/magnetic North orientation may vary from diagram to diagram

Coordinate values are shown in 1 or ½ minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

Positional accuracy within ±600 feet unless otherwise noted on the chart.

NOTE:

All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in FUP. (Foreign Only)



Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations and provide information for updating Computer Based Navigation Systems (I.E., INS, GPS) aboard aircraft. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

LEGEND

## HOT SPOTS

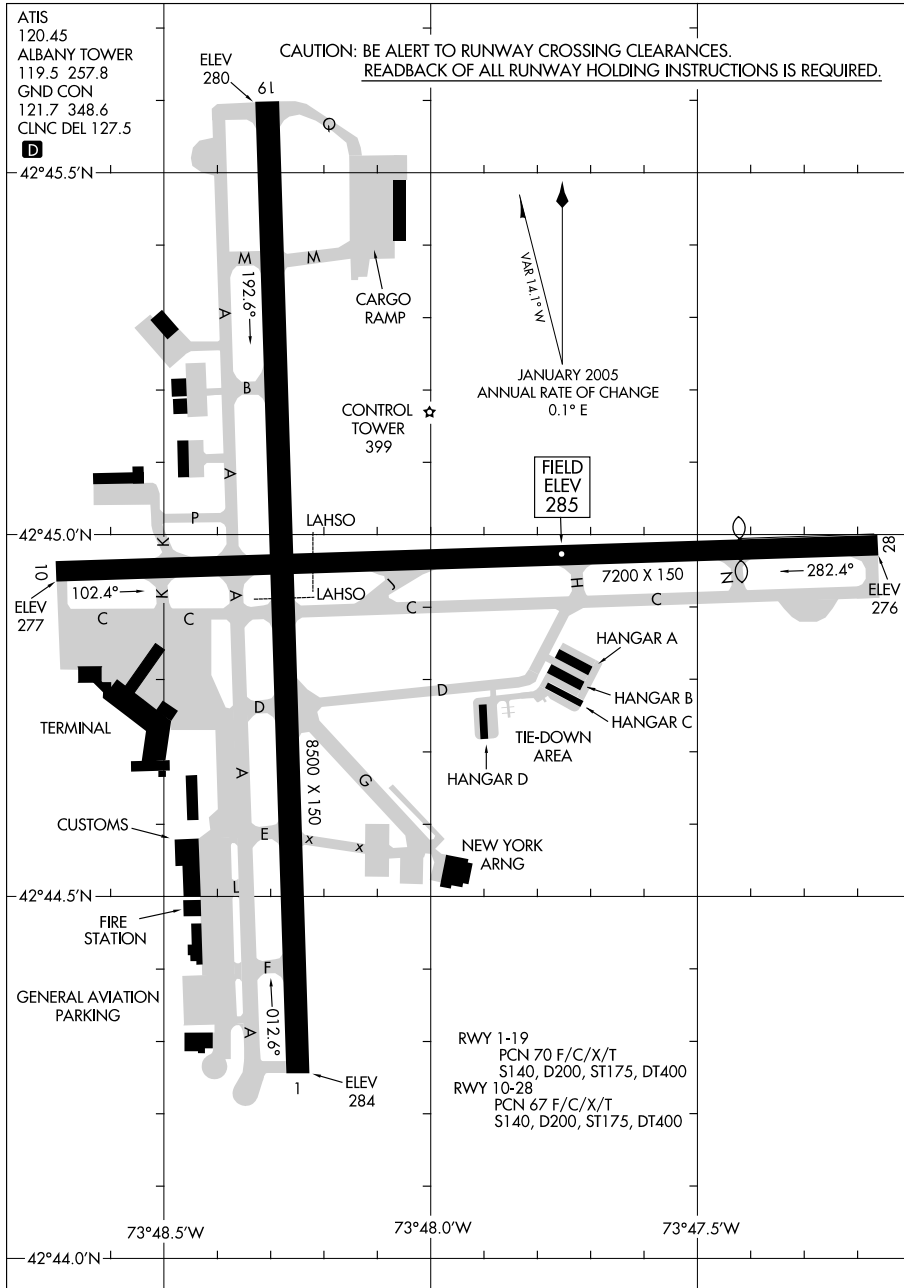
An "Airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary. A "hot spot" is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as "HOT<sup>1</sup>", "HOT<sup>2</sup>", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

CITY/AIRPORT	HOT SPOT	DESCRIPTION
<b>MARYLAND</b>		
BALTIMORE		
BALTIMORE/WASHINGTON	HOT <sup>1</sup>	Uncontrolled stop bar. No crossing allowed.
INTL THURGOOD MARSHALL (BWI)		
<b>NEW JERSEY</b>		
CALDWELL		
ESSEX CO (CDW)	HOT <sup>1</sup>	Pilots taxiing to Rwy 28 northbound on Twy P should exercise caution at intersection of Twy P and Twn N due to close proximity to Rwy 28.
<b>NEW YORK</b>		
ROCHESTER		
GREATER ROCHESTER INTL (ROC)	HOT <sup>1</sup>	Be alert during ldg/tkf Rwy 25 and Rwy 28 thlds in close proximity to each other.
	HOT <sup>2</sup>	Do not cross Rwy 10–28 without specific ATC clearance.

09183

## AIRPORT DIAGRAM

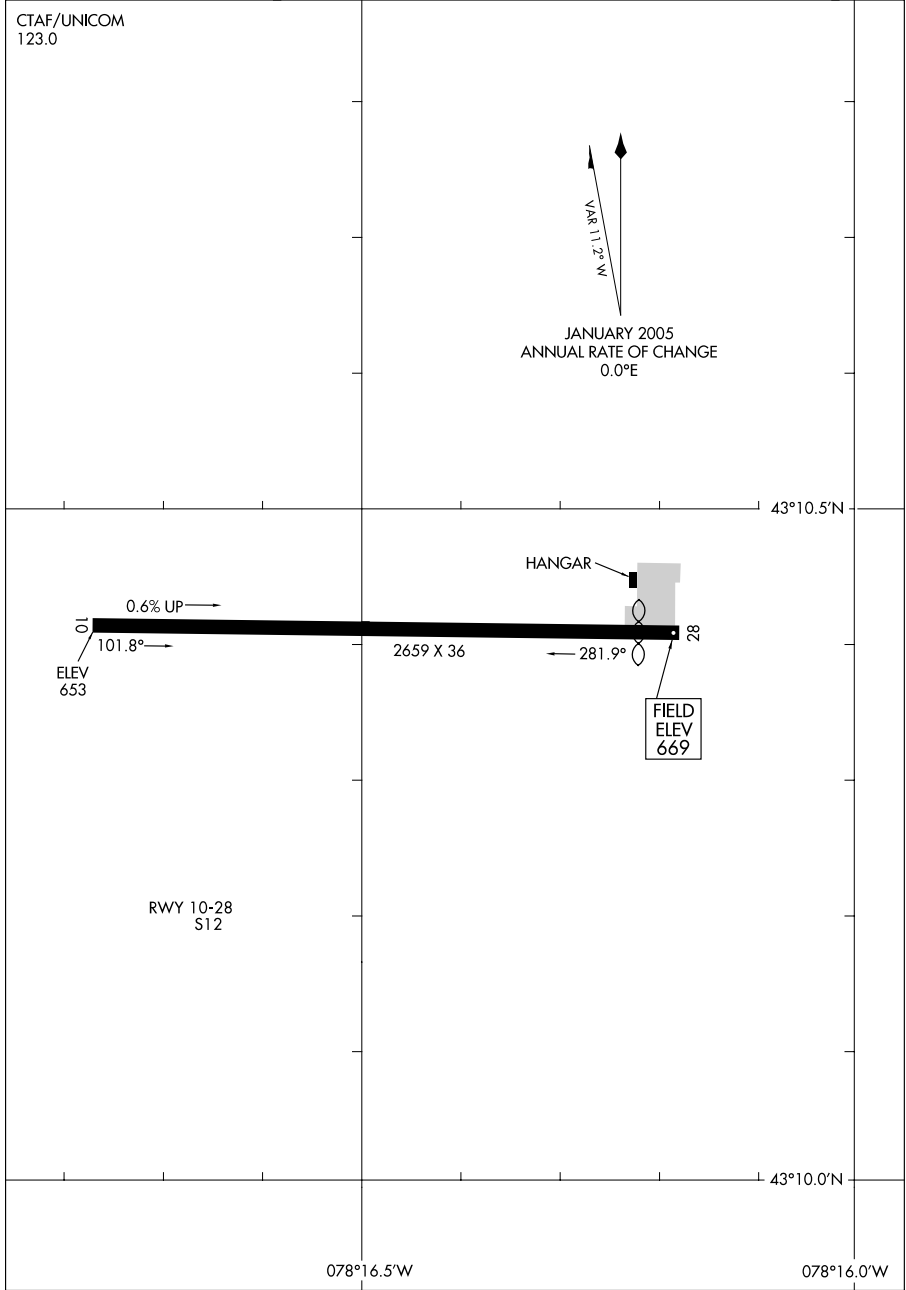
AL-10 (FAA)

ALBANY INTL (ALB)  
ALBANY, NEW YORK

## AIRPORT DIAGRAM

09183

ALBANY, NEW YORK  
ALBANY INTL (ALB)

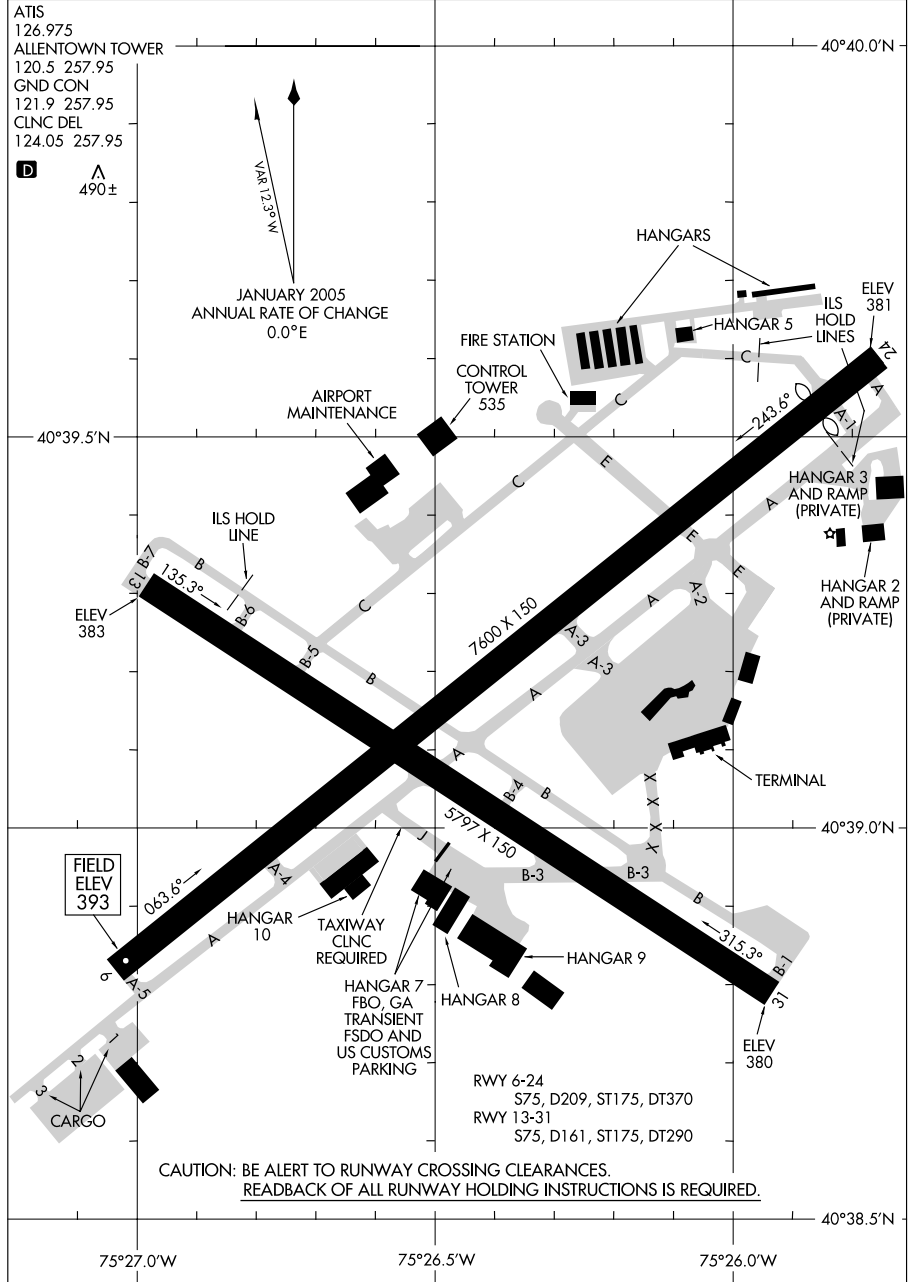


09239

# AIRPORT DIAGRAM

AL-15 (FAA)

ALLENTOWN / LEHIGH VALLEY INTL (ABE)  
ALLENTOWN, PENNSYLVANIA



# AIRPORT DIAGRAM

09239

ALLENTOWN, PENNSYLVANIA  
ALLENTOWN / LEHIGH VALLEY INTL (ABE)



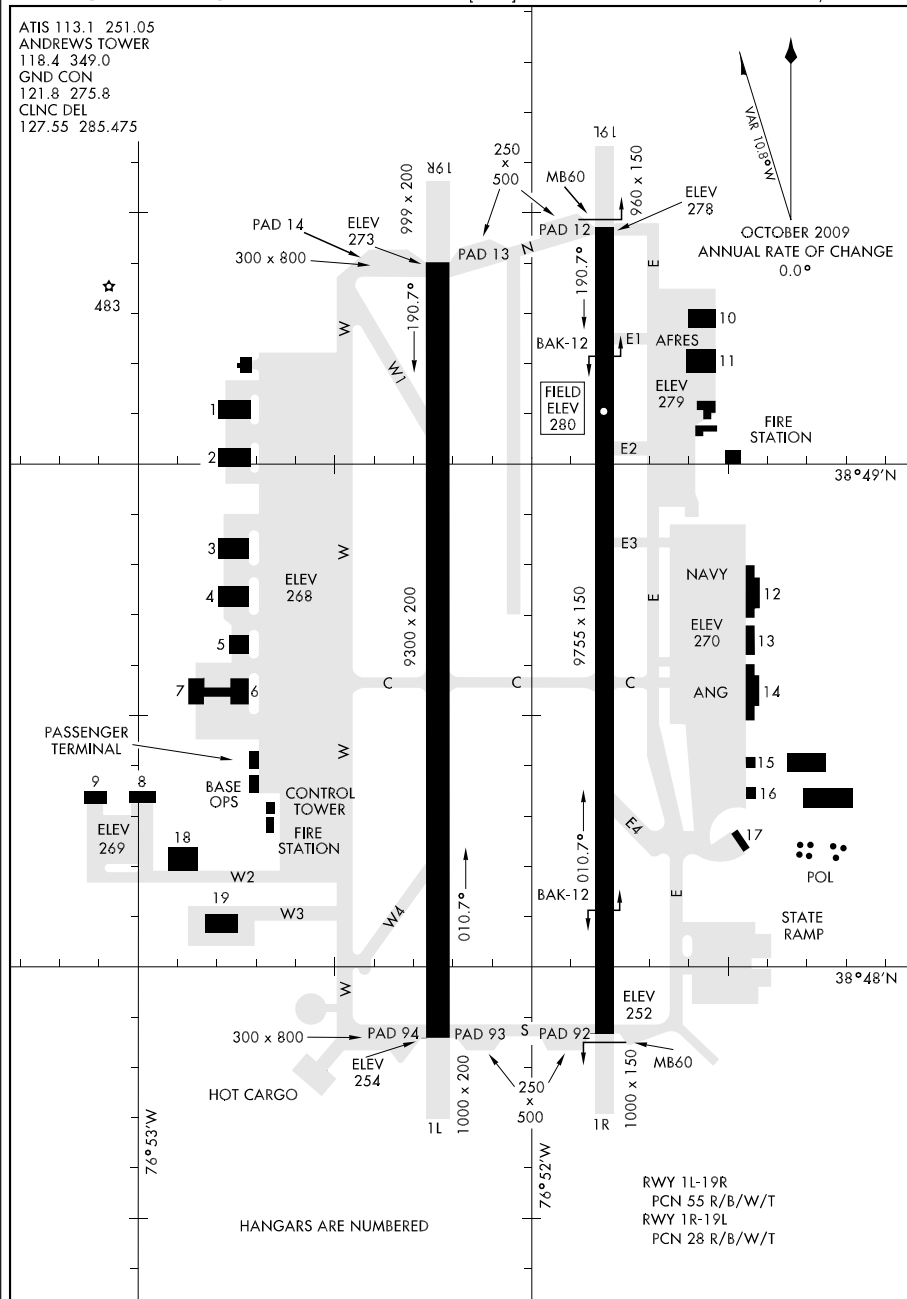
09295

## AIRPORT DIAGRAM

AFD-561 [USAF]

ANDREWS AFB (KADW)

CAMP SPRINGS, MARYLAND



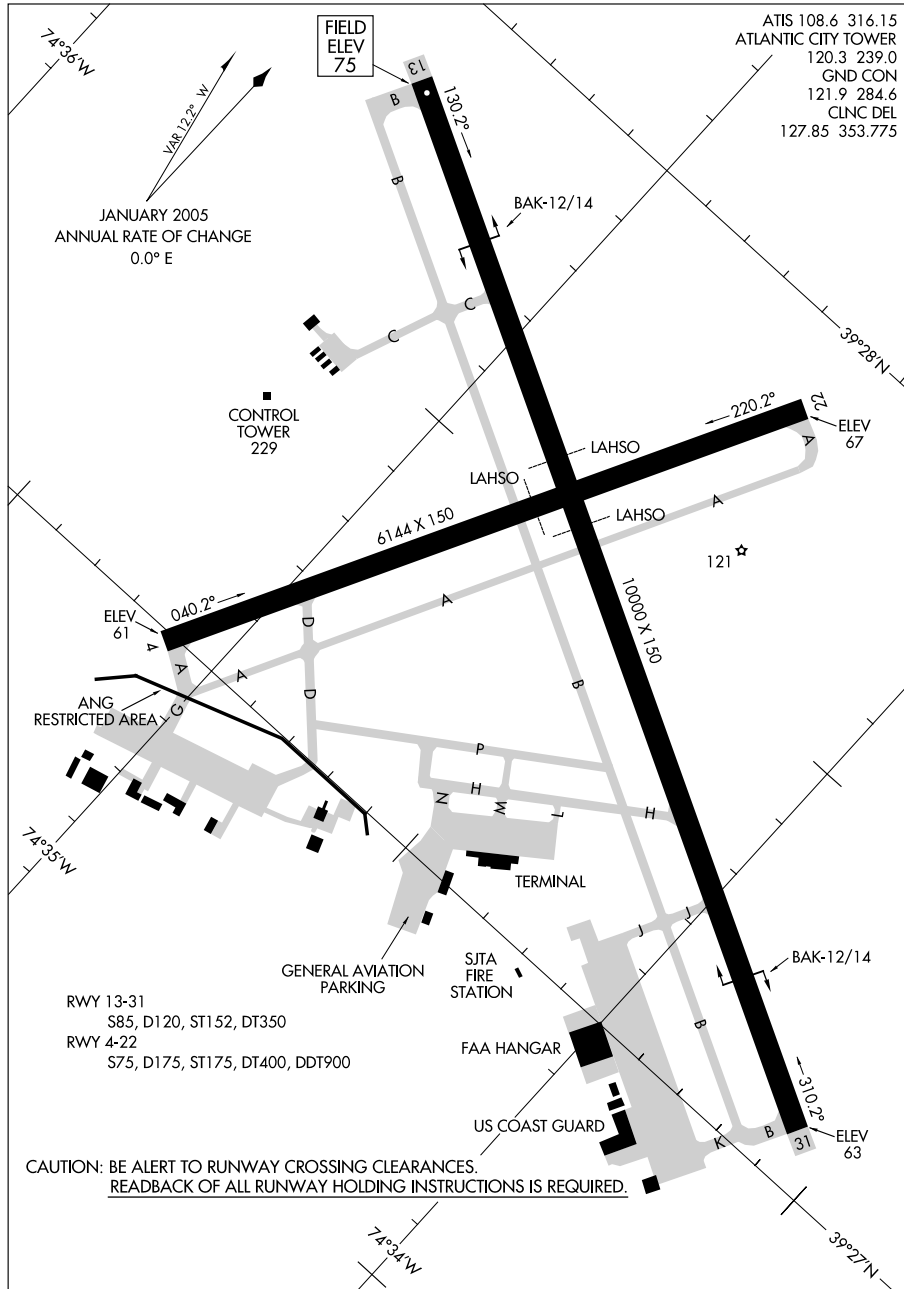
## AIRPORT DIAGRAM

CAMP SPRINGS, MARYLAND

ANDREWS AFB (KADW)

08269

## AIRPORT DIAGRAM

ATLANTIC CITY INTL (ACY)  
ATLANTIC CITY, NEW JERSEY

## AIRPORT DIAGRAM

08269

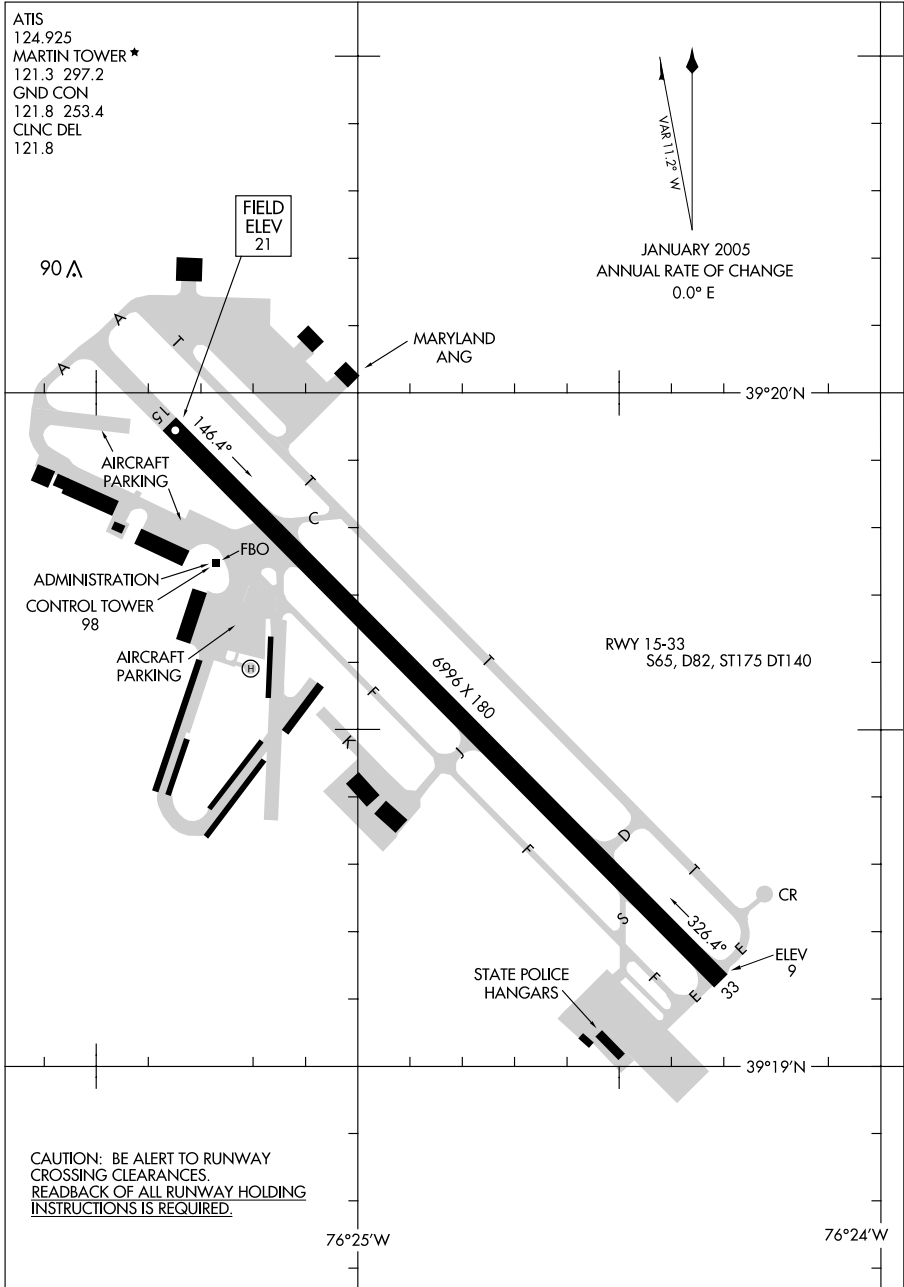
ATLANTIC CITY, NEW JERSEY  
ATLANTIC CITY INTL (ACY)



09295

## AIRPORT DIAGRAM

AL-5222 (FAA)

BALTIMORE/MARTIN STATE (MTN)  
BALTIMORE, MARYLAND

## AIRPORT DIAGRAM

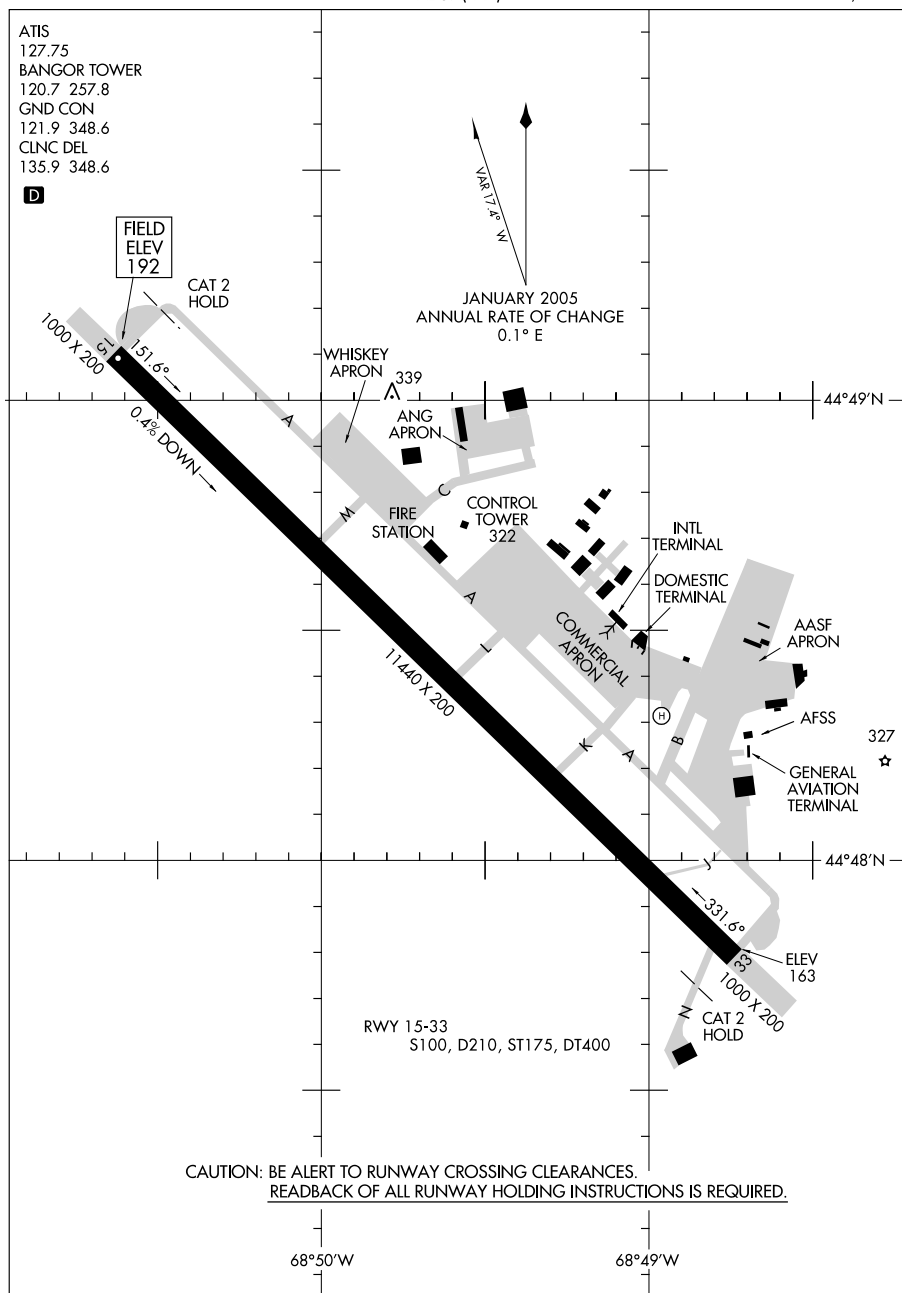
09295

BALTIMORE, MARYLAND  
BALTIMORE/MARTIN STATE (MTN)

09295

## AIRPORT DIAGRAM

AL-39 (FAA)

BANGOR INTL (BGR)  
BANGOR, MAINE

## AIRPORT DIAGRAM

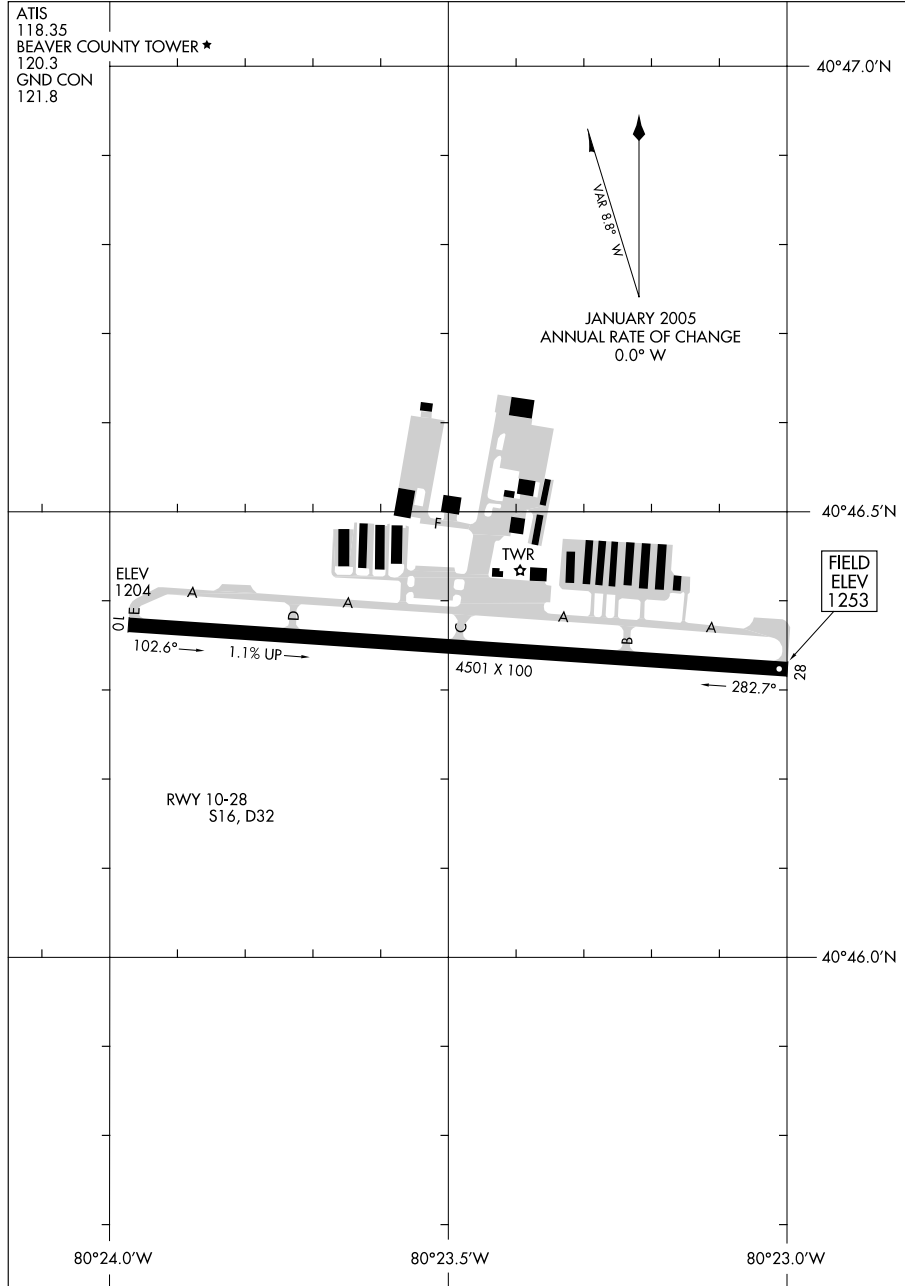
09295

BANGOR, MAINE  
BANGOR INTL (BGR)

09295

## AIRPORT DIAGRAM

AL-5206 (FAA)

BEAVER FALLS/ BEAVER COUNTY (BVI)  
BEAVER FALLS, PENNSYLVANIA

## AIRPORT DIAGRAM

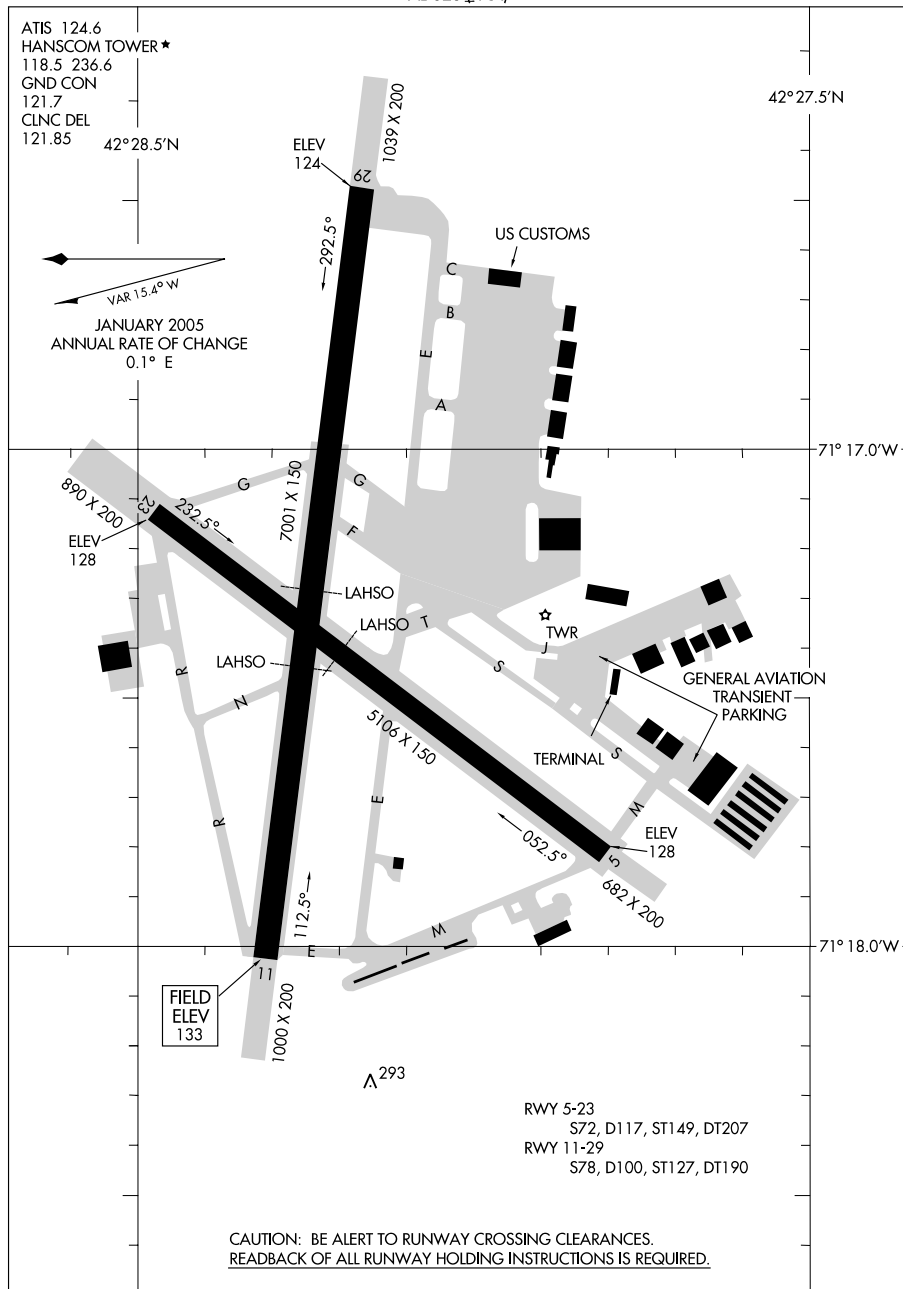
09295

BEAVER FALLS, PENNSYLVANIA  
BEAVER FALLS/BEAVER COUNTY (BVI)

07242

## AIRPORT DIAGRAM

BEDFORD / LAURENCE G. HANSCOM FIELD (BED)  
AL-626 (FAA) BEDFORD, MASSACHUSETTS



## AIRPORT DIAGRAM

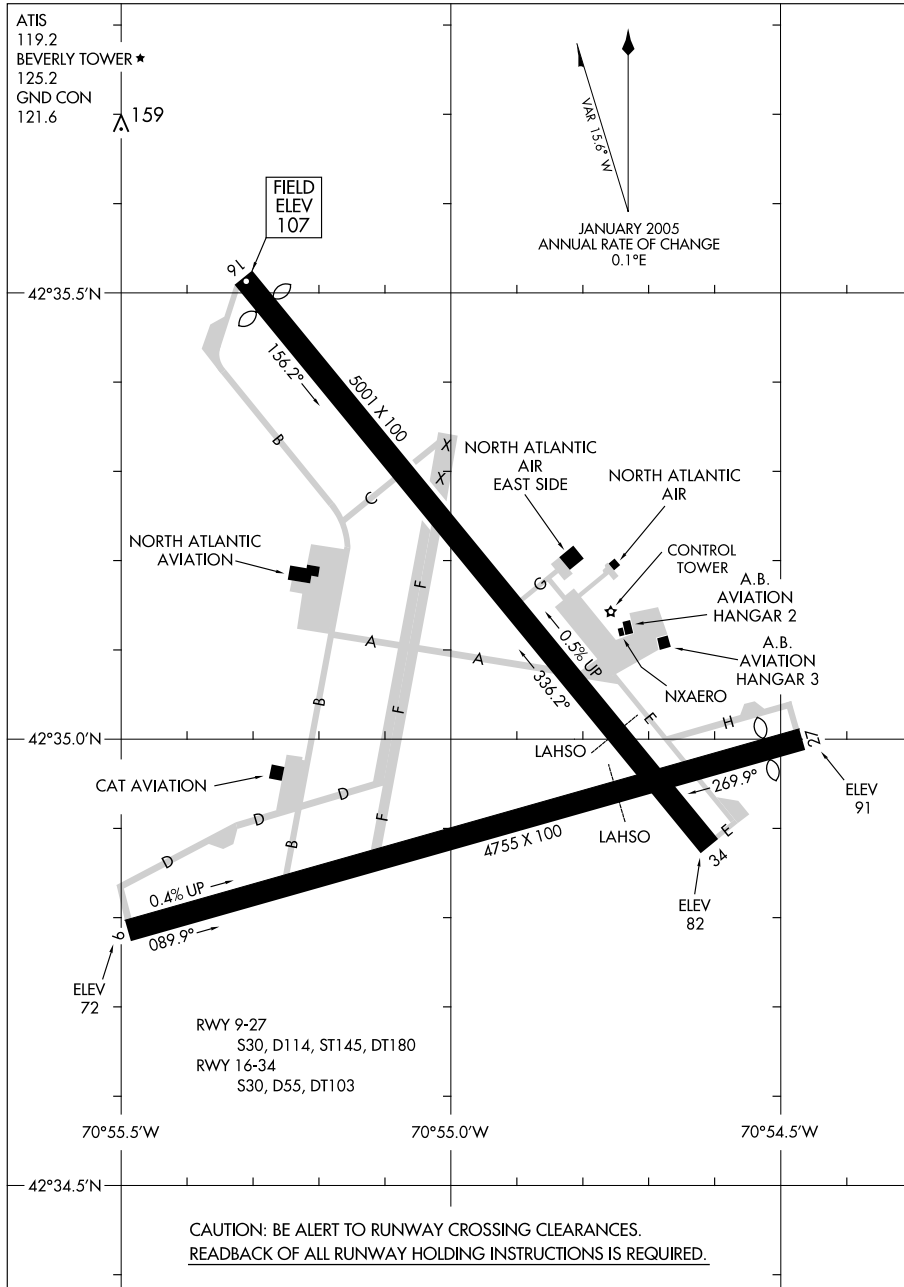
07242

BEDFORD, MASSACHUSETTS  
BEDFORD / LAURENCE G. HANSCOM FIELD (BED)

09015

## AIRPORT DIAGRAM

AL-5039 (FAA)

BEVERLY MUNI (BVY)  
BEVERLY, MASSACHUSETTS

## AIRPORT DIAGRAM

BEVERLY, MASSACHUSETTS  
BEVERLY MUNI (BVY)

09015

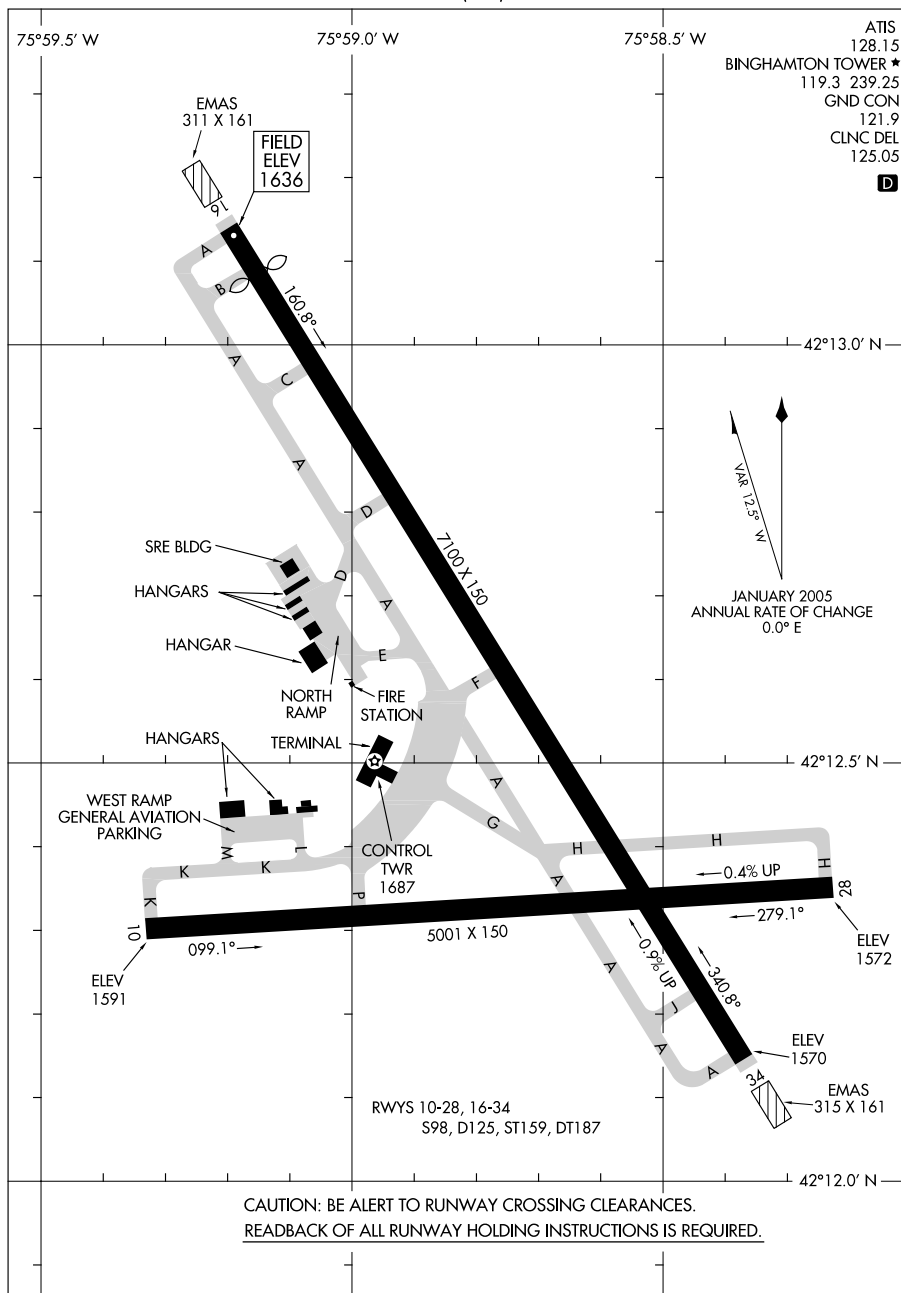


09239

## AIRPORT DIAGRAM

BINGHAMTON/ GREATER BINGHAMTON/EDWIN A. LINK FIELD (BGM)  
AL-20 (FAA)

BINGHAMTON, NEW YORK



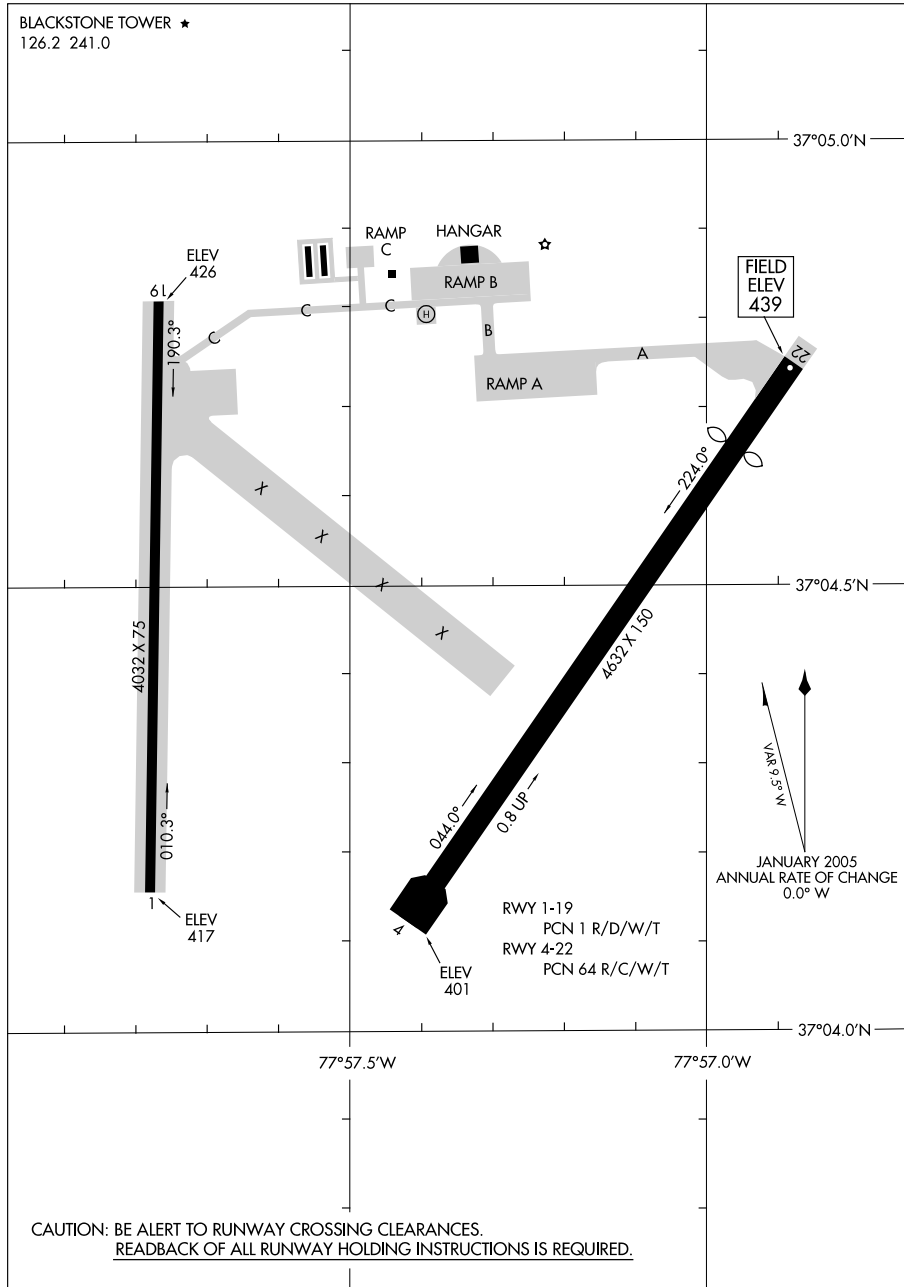
## AIRPORT DIAGRAM

BINGHAMTON, NEW YORK  
BINGHAMTON/ GREATER BINGHAMTON/EDWIN A. LINK FIELD (BGM)

09239

09015

## AIRPORT DIAGRAM

BLACKSTONE/ALLEN C. PERKINSON/BAAF (BKT)  
AL-52 (FAA) BLACKSTONE, VIRGINIA

## AIRPORT DIAGRAM

09015

BLACKSTONE, VIRGINIA  
BLACKSTONE/ALLEN C. PERKINSON/BAAF (BKT)





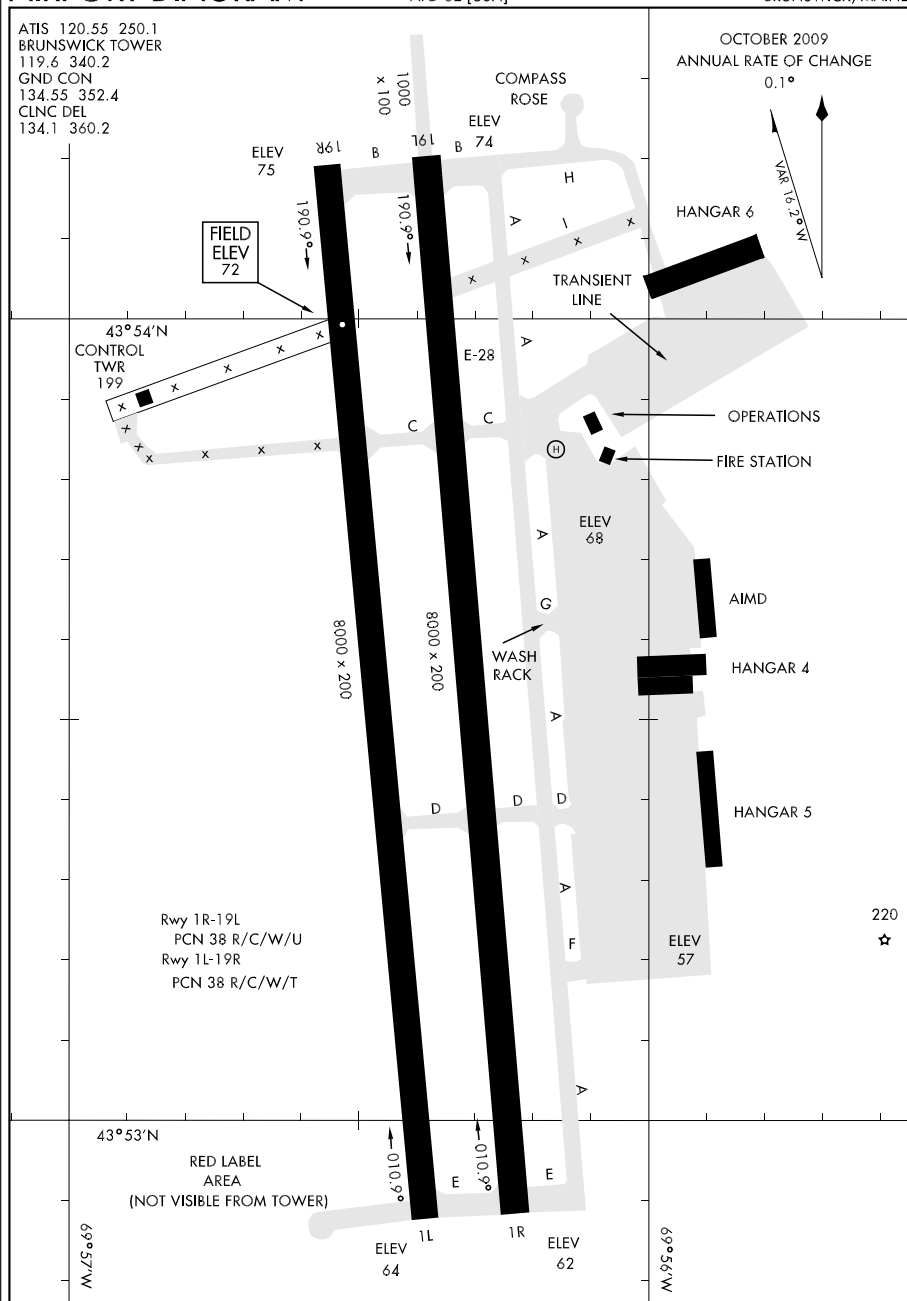
09295

## AIRPORT DIAGRAM

AFD-62 [USN]

BRUNSWICK NAS (KNHZ)

BRUNSWICK, MAINE

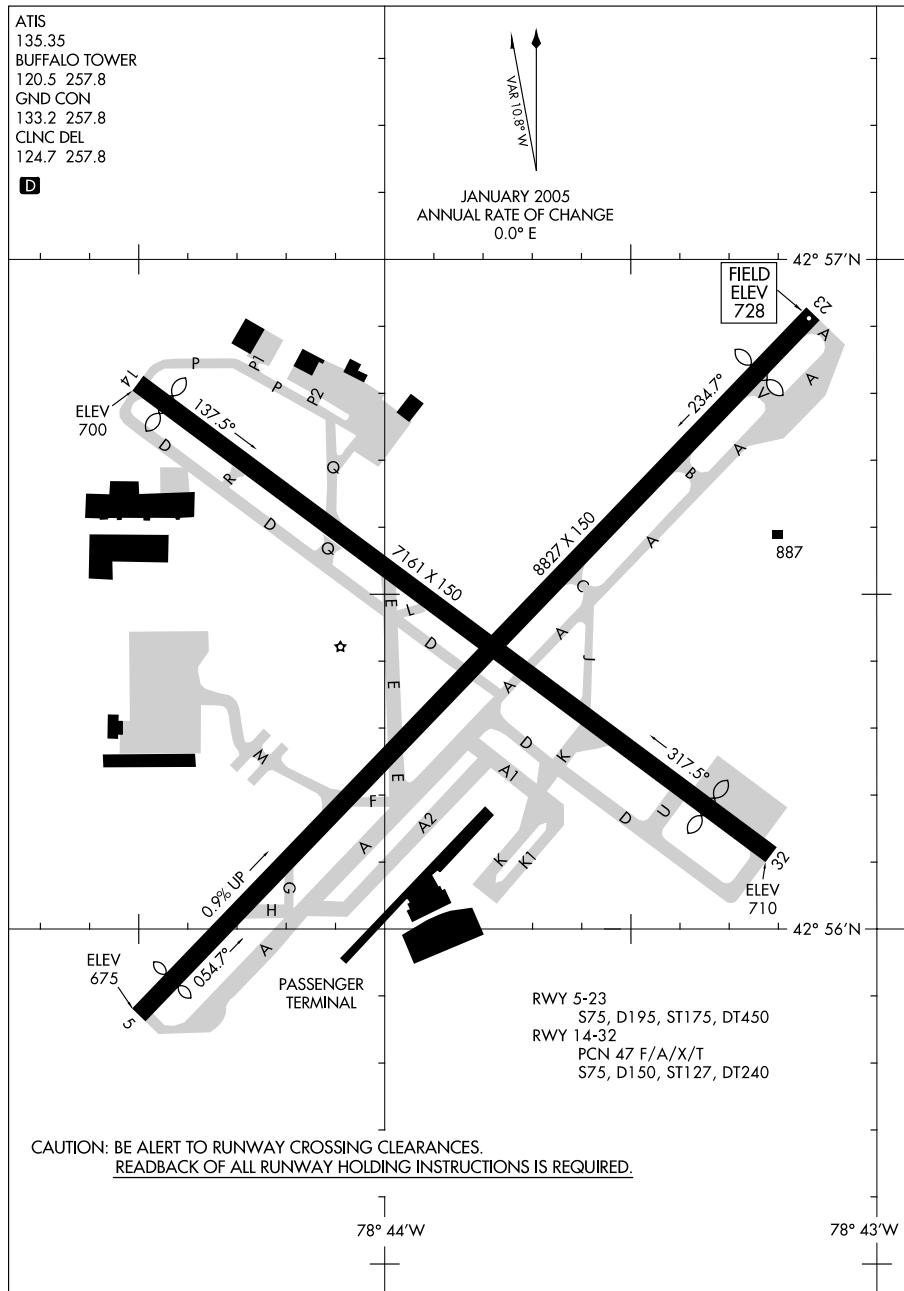


## AIRPORT DIAGRAM

 BRUNSWICK, MAINE  
 BRUNSWICK NAS (KNHZ)

09239

## AIRPORT DIAGRAM

BUFFALO NIAGARA INTL (BUF)  
BUFFALO, NEW YORK

## AIRPORT DIAGRAM

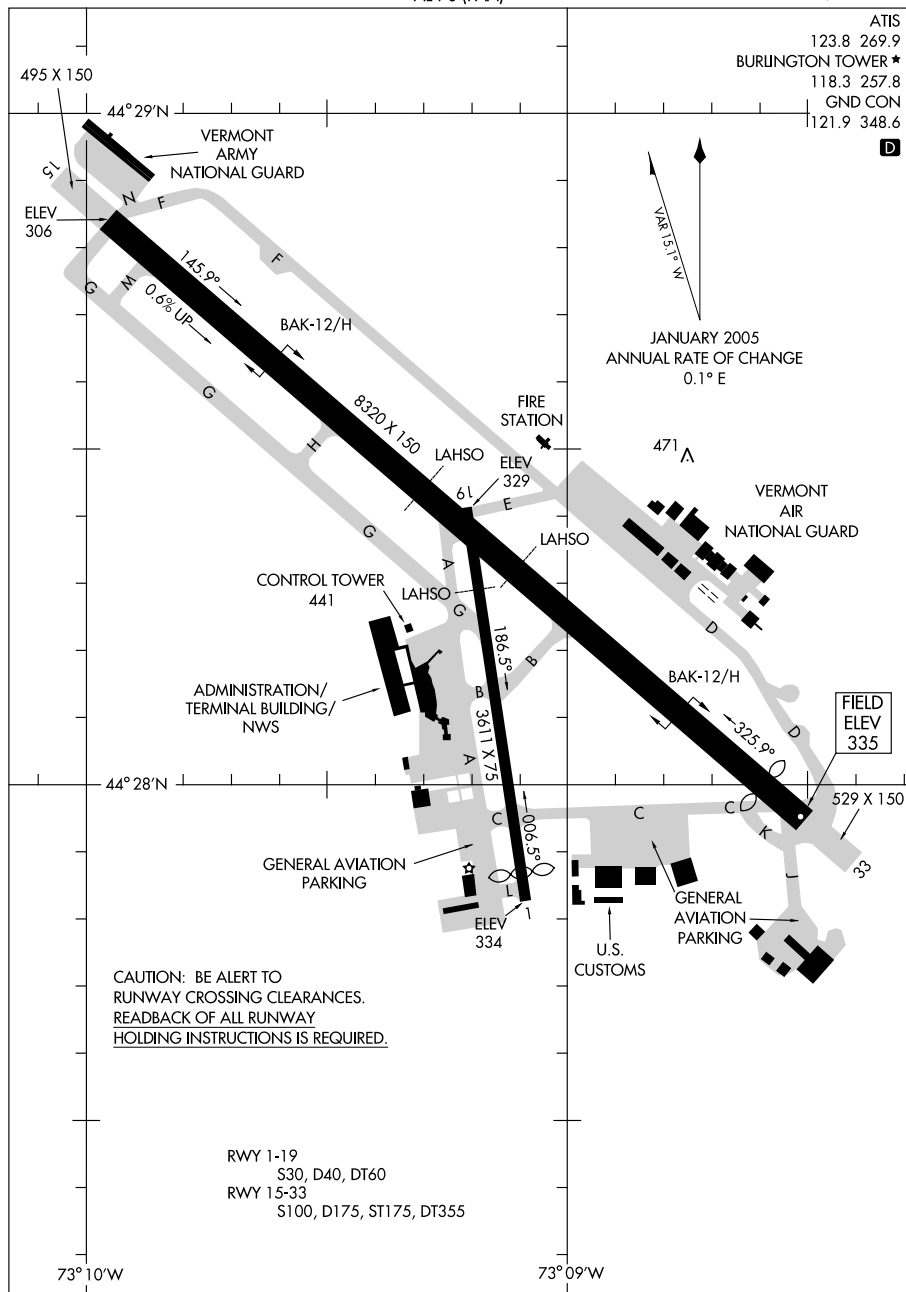
BUFFALO, NEW YORK  
BUFFALO NIAGARA INTL (BUF)

09239

09239

## AIRPORT DIAGRAM

AL-70 (FAA)

BURLINGTON INTL (BTV)  
BURLINGTON, VERMONT

## AIRPORT DIAGRAM

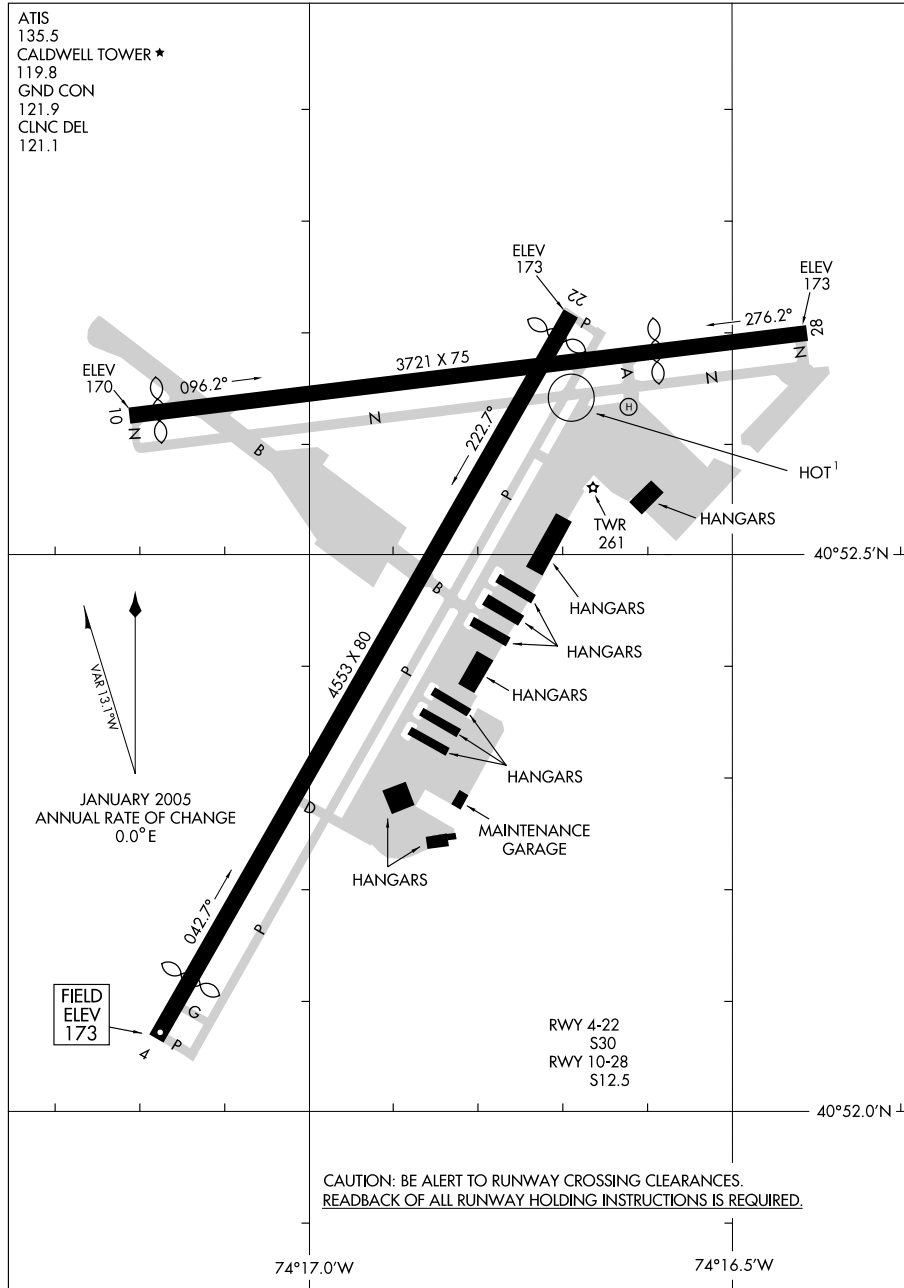
09239

BURLINGTON, VERMONT  
BURLINGTON INTL (BTV)

09239

## AIRPORT DIAGRAM

AL-5275 (FAA)

CALDWELL/ ESSEX COUNTY (CDW)  
CALDWELL, NEW JERSEY

## AIRPORT DIAGRAM

09239

CALDWELL, NEW JERSEY  
CALDWELL/ ESSEX COUNTY (CDW)



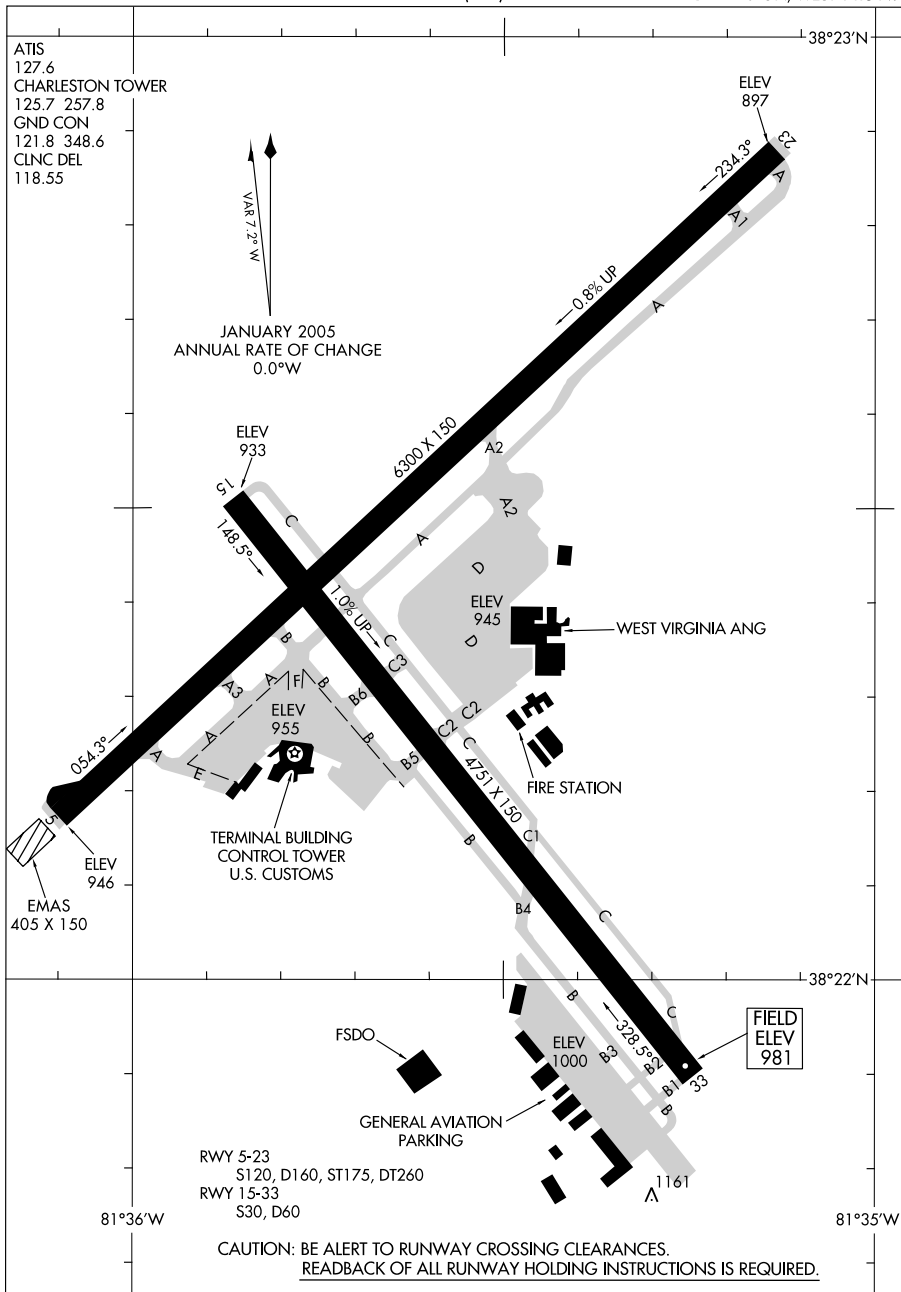
09183

## AIRPORT DIAGRAM

AL-852 (FAA)

CHARLESTON/ YEAGER (CRW)

CHARLESTON, WEST VIRGINIA



# AIRPORT DIAGRAM

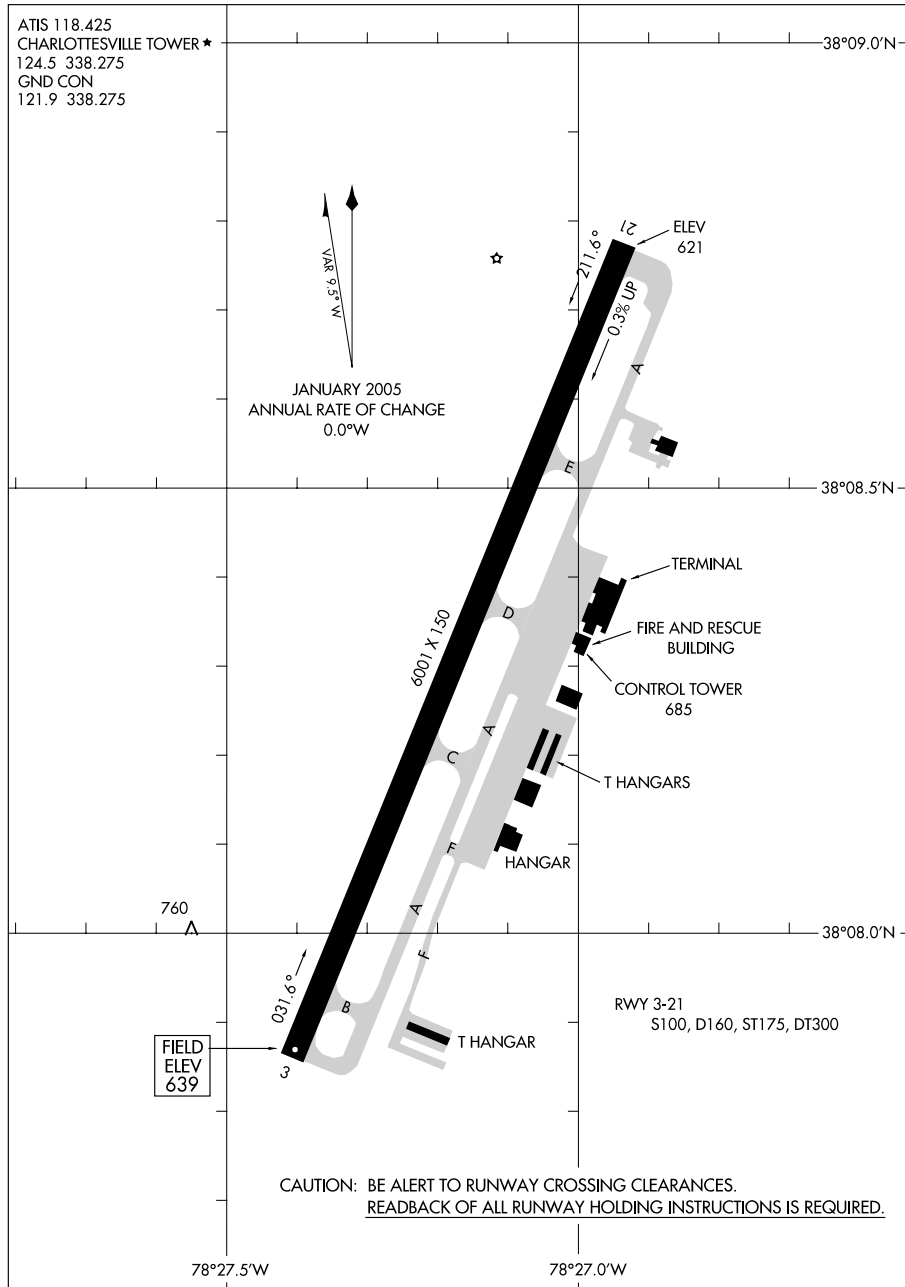
09183

CHARLESTON, WEST VIRGINIA  
CHARLESTON/ YEAGER (CRW)

06327

## AIRPORT DIAGRAM

AL-765 (FAA)

CHARLOTTESVILLE-ALBERMARLE (CHO)  
CHARLOTTESVILLE, VIRGINIA

## AIRPORT DIAGRAM

06327

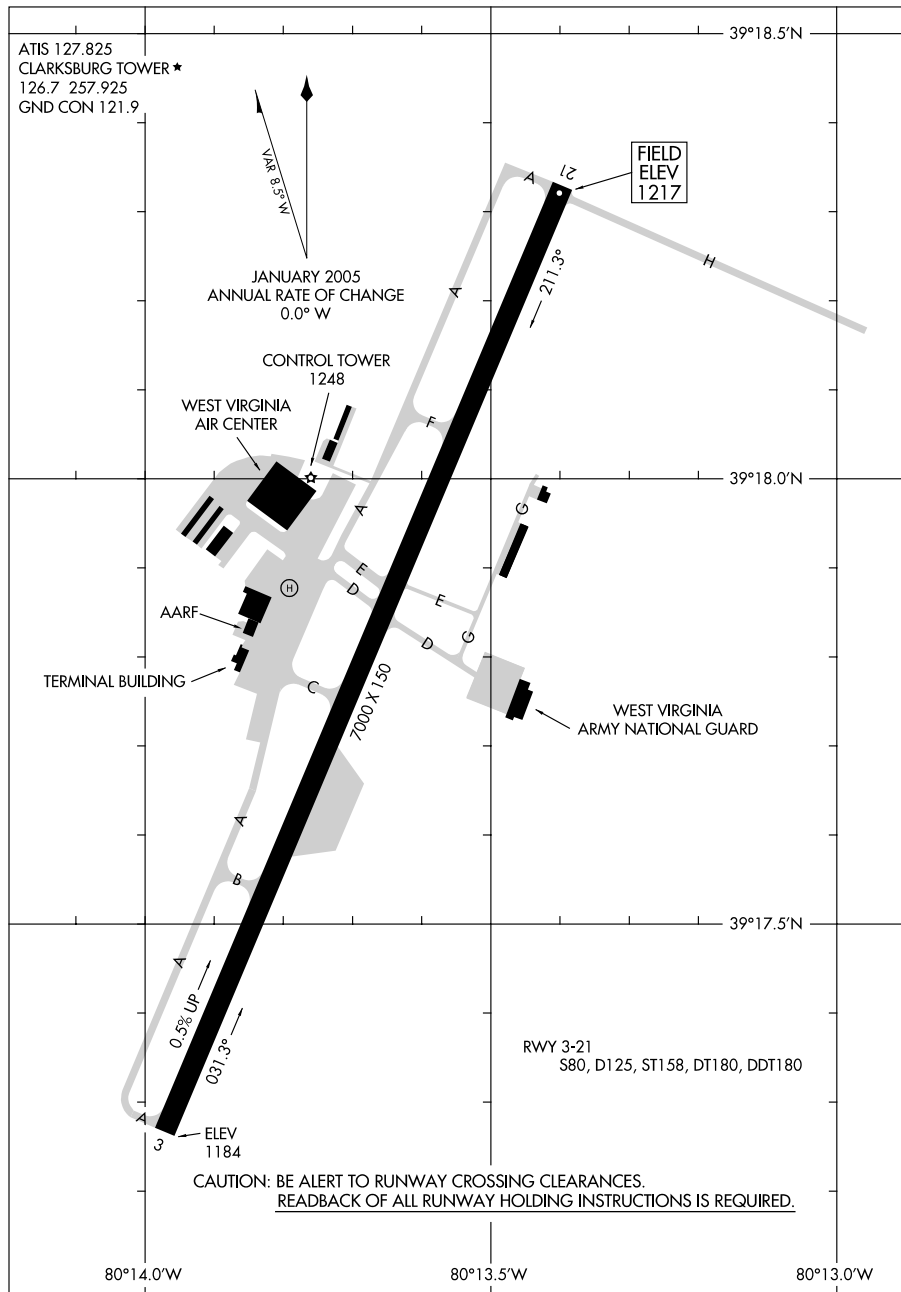
CHARLOTTESVILLE, VIRGINIA  
CHARLOTTESVILLE-ALBERMARLE (CHO)

07298

## AIRPORT DIAGRAM

CLARKSBURG / NORTH CENTRAL WEST VIRGINIA (CKB)  
AL-616 (FAA)

CLARKSBURG, WEST VIRGINIA



## AIRPORT DIAGRAM

07298

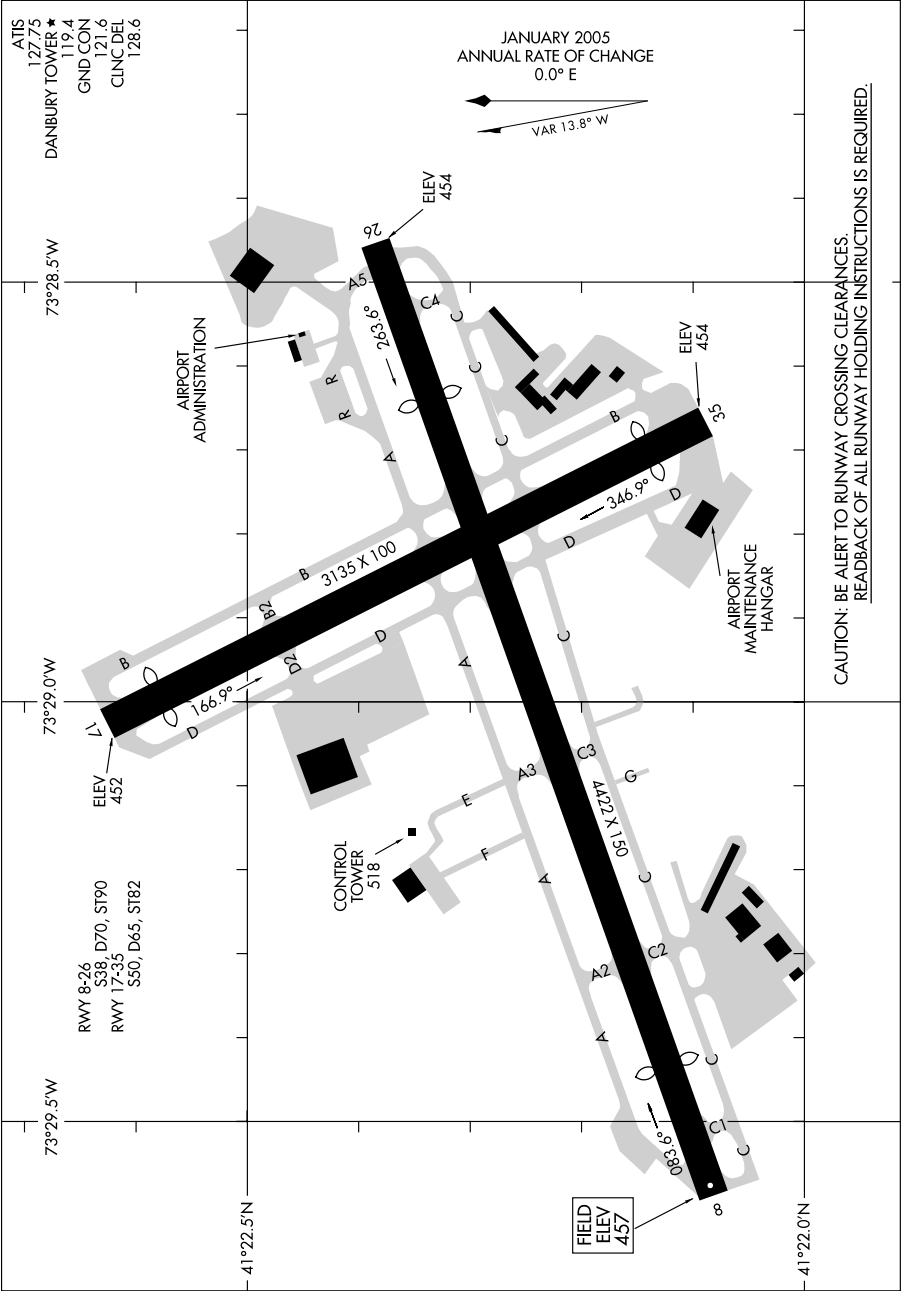
CLARKSBURG, WEST VIRGINIA  
CLARKSBURG / NORTH CENTRAL WEST VIRGINIA (CKB)

09183

AIRPORT DIAGRAM

AL-5272 (FAA)

DANBURY MUNI (DXR)  
DANBURY, CONNECTICUT



AIRPORT DIAGRAM

09183

DANBURY, CONNECTICUT  
DANBURY MUNI (DXR)

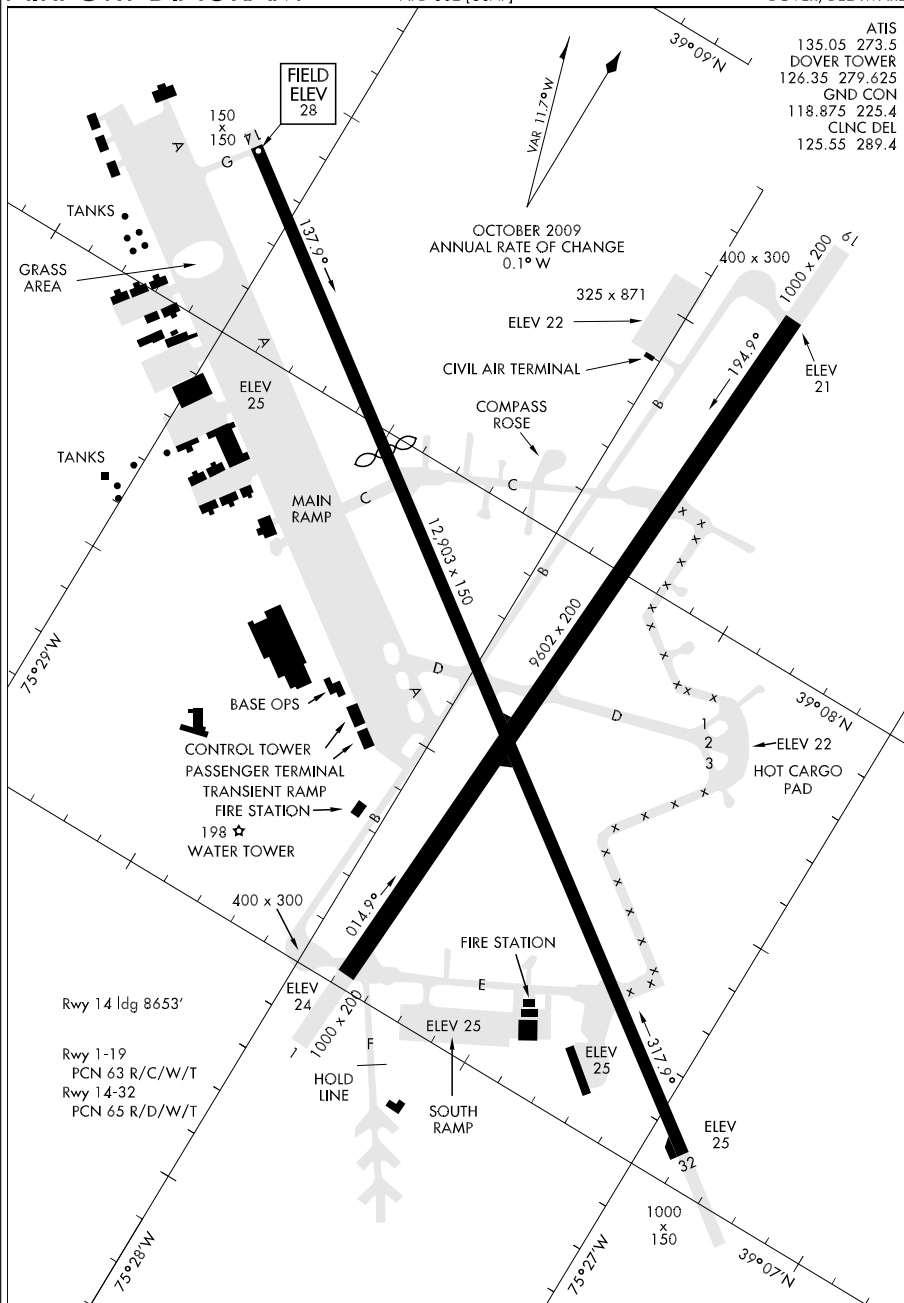
09295

# AIRPORT DIAGRAM

AFD-562 [USAF]

DOVER AFB (KDOV)

DOVER, DELAWARE



## AIRPORT DIAGRAM

DOVER, DELAWARE

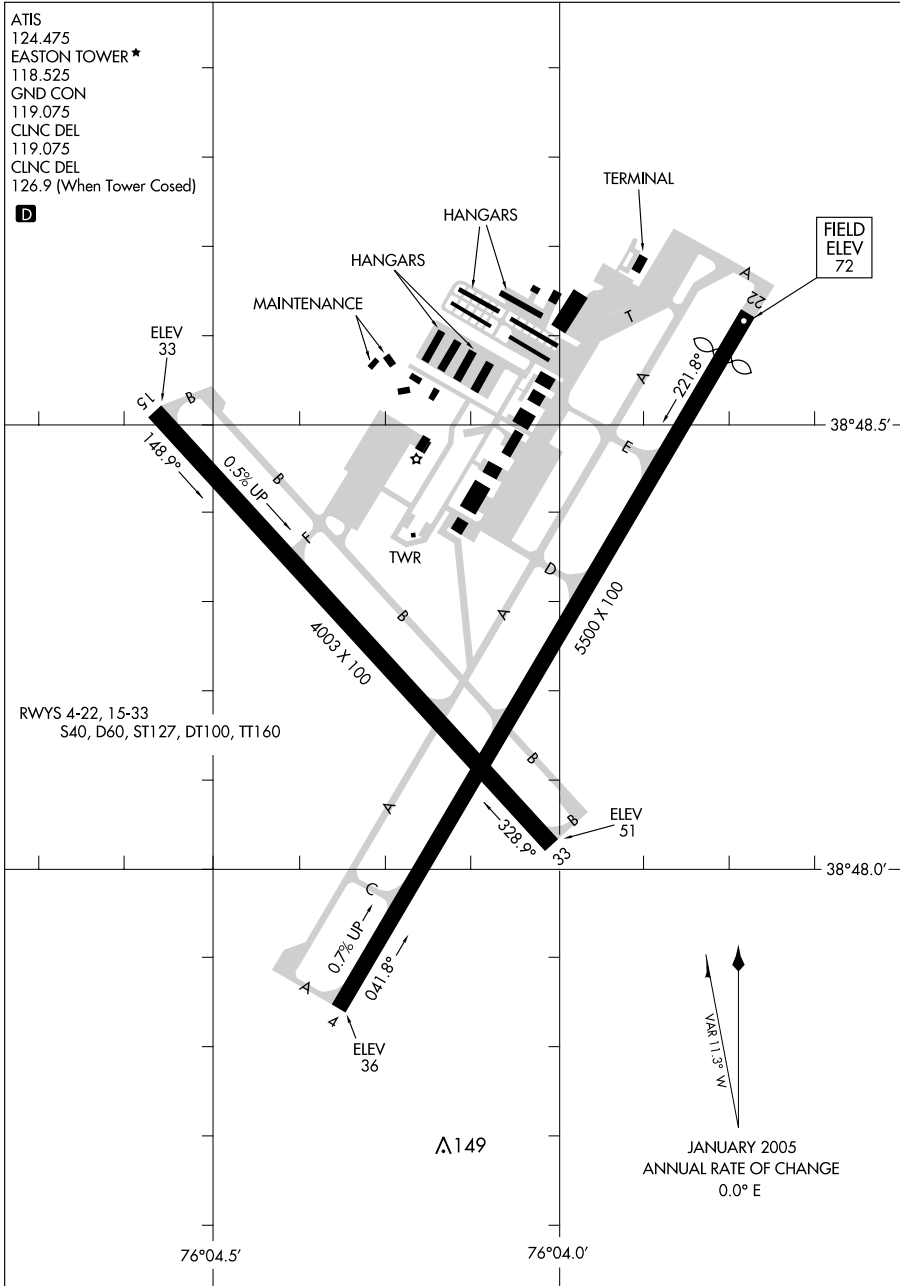
DOVER AFB (KDOV)

NE, 22 OCT 2009 to 17 DEC 2009

09127

## AIRPORT DIAGRAM

AL-5596 (FAA)

EASTON/NEWNAM FIELD (ESN)  
EASTON, MARYLAND

## AIRPORT DIAGRAM

09127

EASTON, MARYLAND  
EASTON/NEWNAM FIELD (ESN)

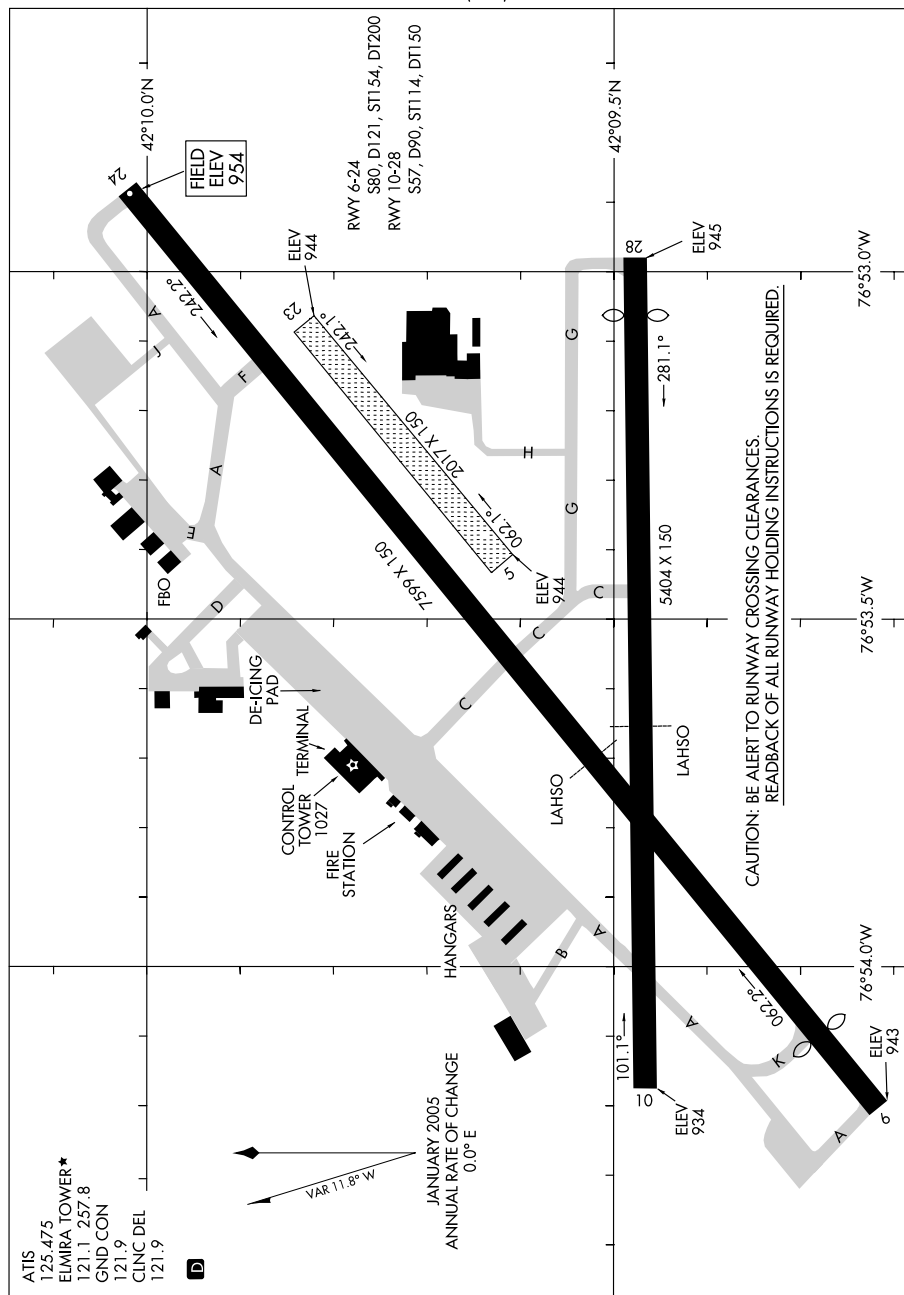
09127

# AIRPORT DIAGRAM

AL-131 (FAA)

ELMIRA/CORNING RGNL (ELM)

ELMIRA, NEW YORK



## AIRPORT DIAGRAM

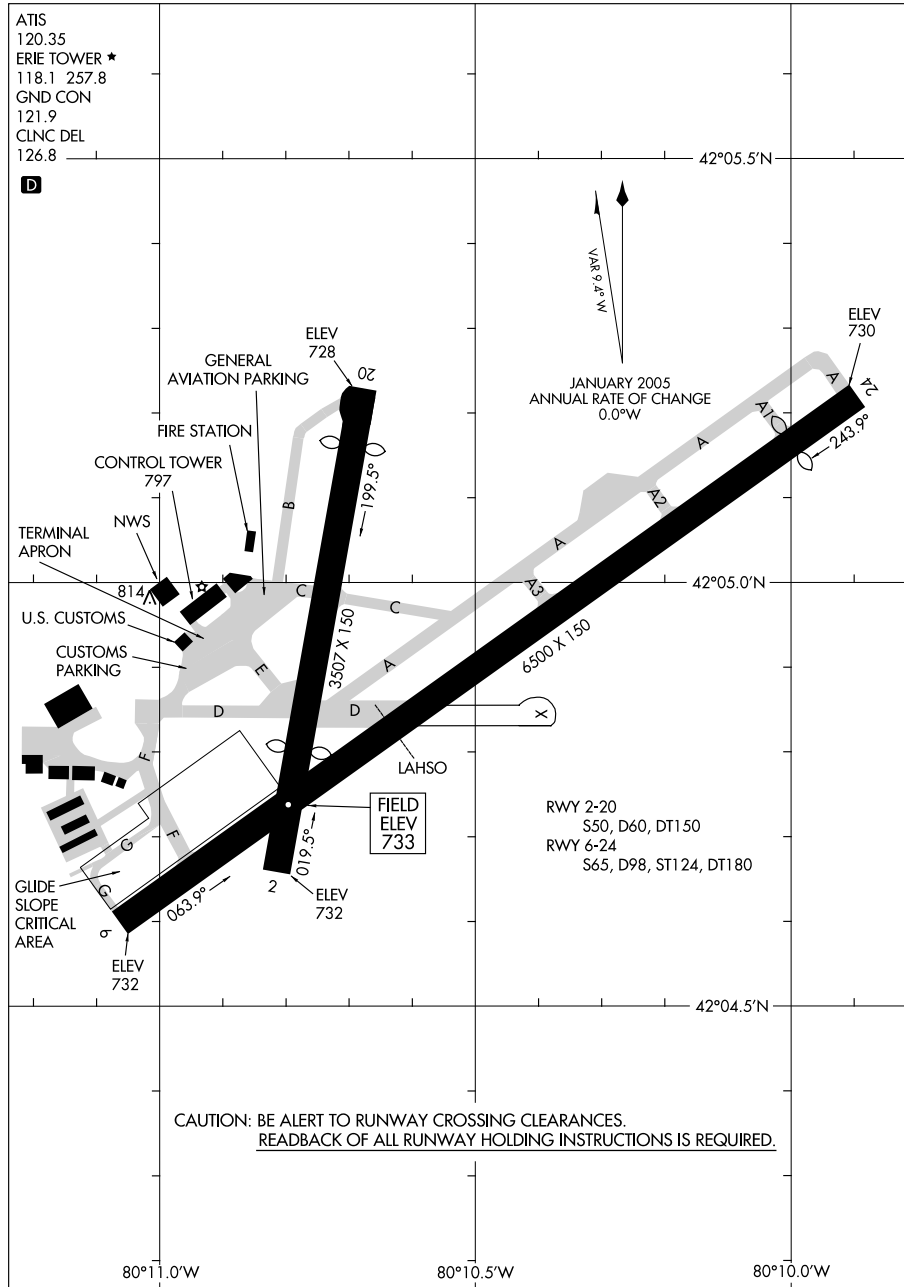
09127

ELMIRA, NEW YORK  
ELMIRA/CORNING RGNL (ELM)

09015

## AIRPORT DIAGRAM

AL-139 (FAA)

ERIE INTL/TOM RIDGE FIELD (ERI)  
ERIE, PENNSYLVANIA

## AIRPORT DIAGRAM

09015

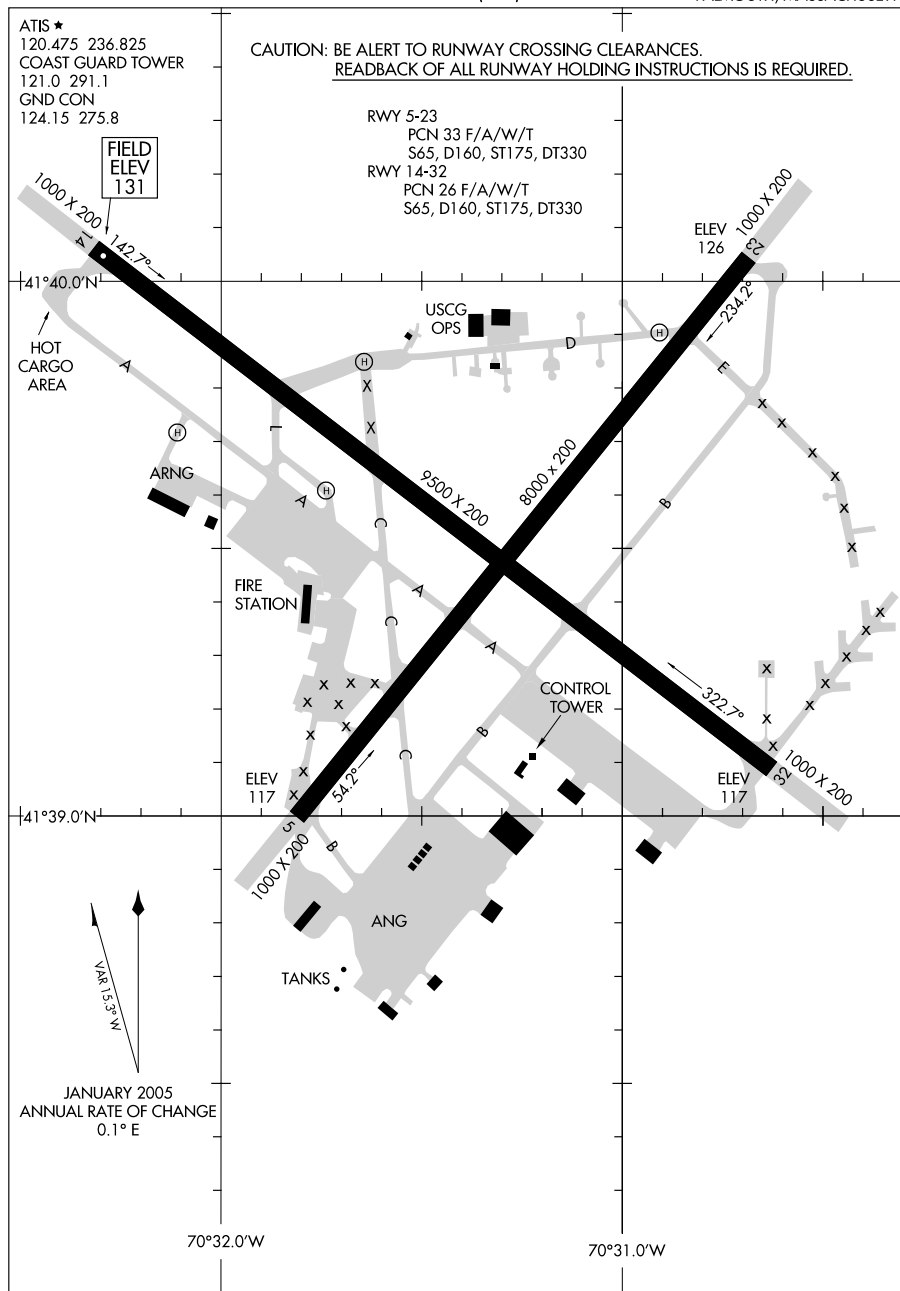
ERIE, PENNSYLVANIA  
ERIE INTL/TOM RIDGE FIELD (ERI)



09183

## AIRPORT DIAGRAM

FALMOUTH/CAPE COD COAST GUARD AIR STATION (F'MH)  
AL-10362 (FAA) FALMOUTH, MASSACHUSETTS



## AIRPORT DIAGRAM

FALMOUTH, MASSACHUSETTS  
FALMOUTH/CAPE COD COAST GUARD AIR STATION (F'MH)

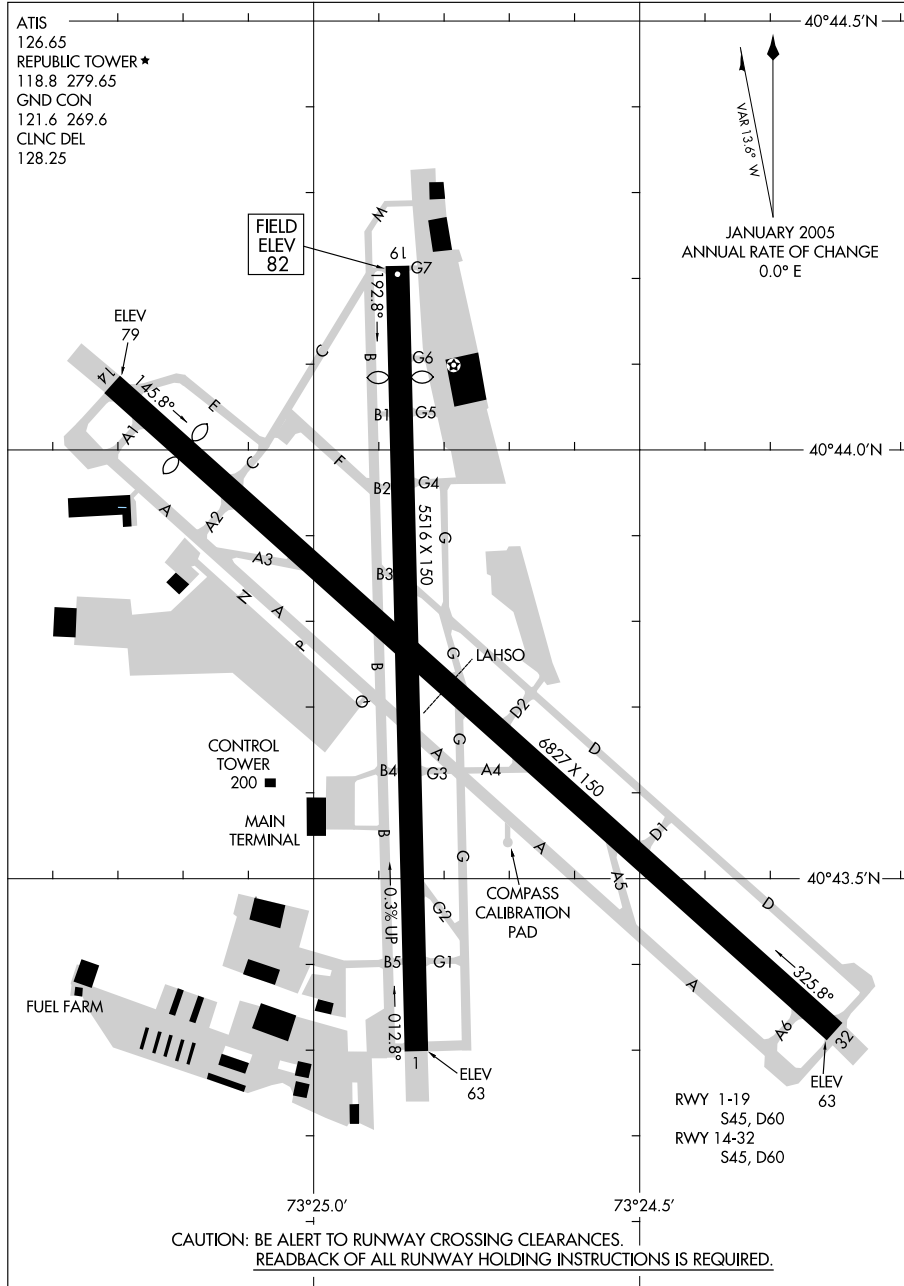
09183

NE, 22 OCT 2009 to 17 DEC 2009

09015

## AIRPORT DIAGRAM

AL-704 (FAA)

FARMINGDALE / REPUBLIC (F.R.G.)  
FARMINGDALE, NEW YORK

## AIRPORT DIAGRAM

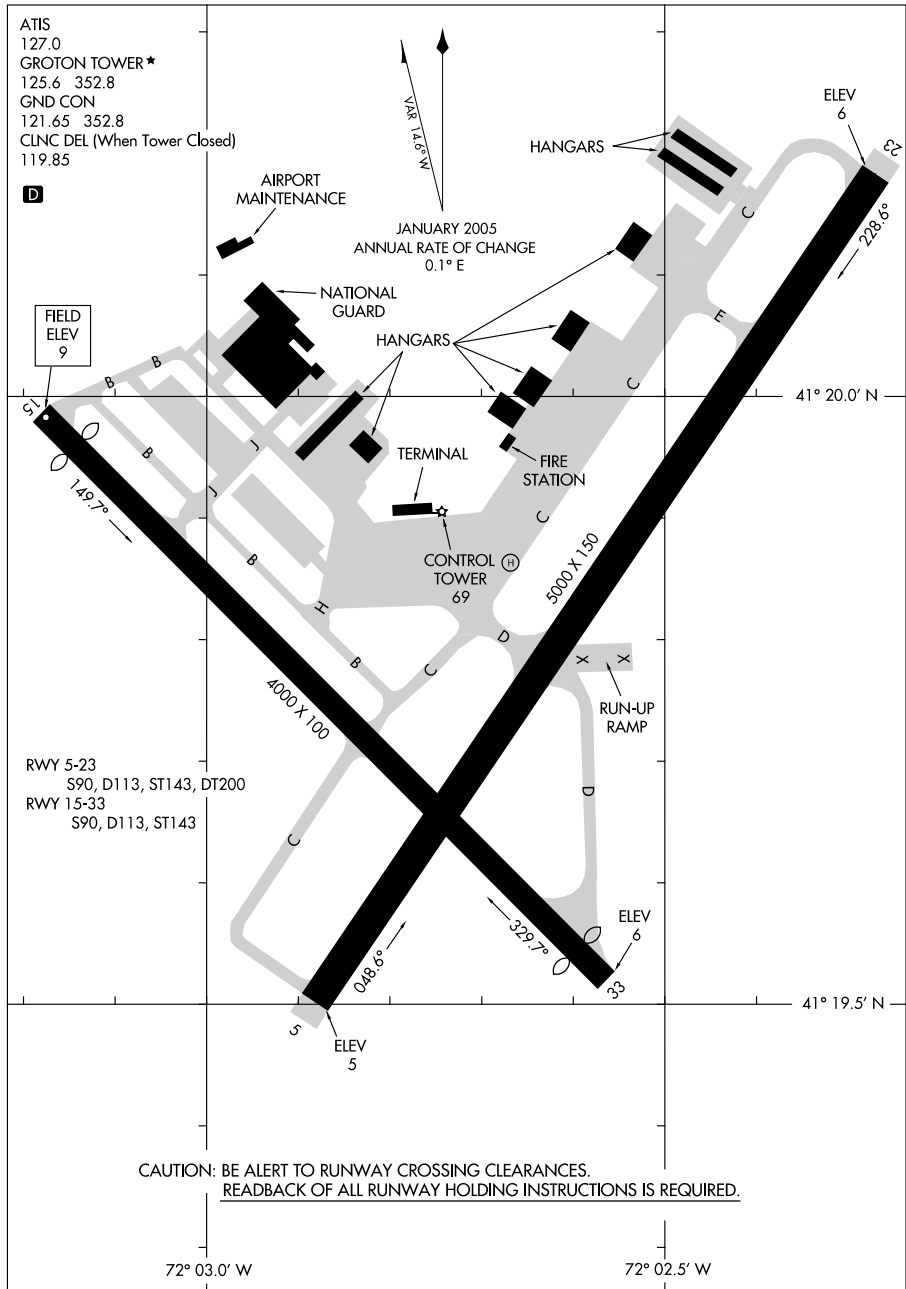
09015

FARMINGDALE, NEW YORK  
FARMINGDALE / REPUBLIC (F.R.G.)



09071

## AIRPORT DIAGRAM

GROTON-NEW LONDON (GON)  
GROTON (NEW LONDON), CONNECTICUT

## AIRPORT DIAGRAM

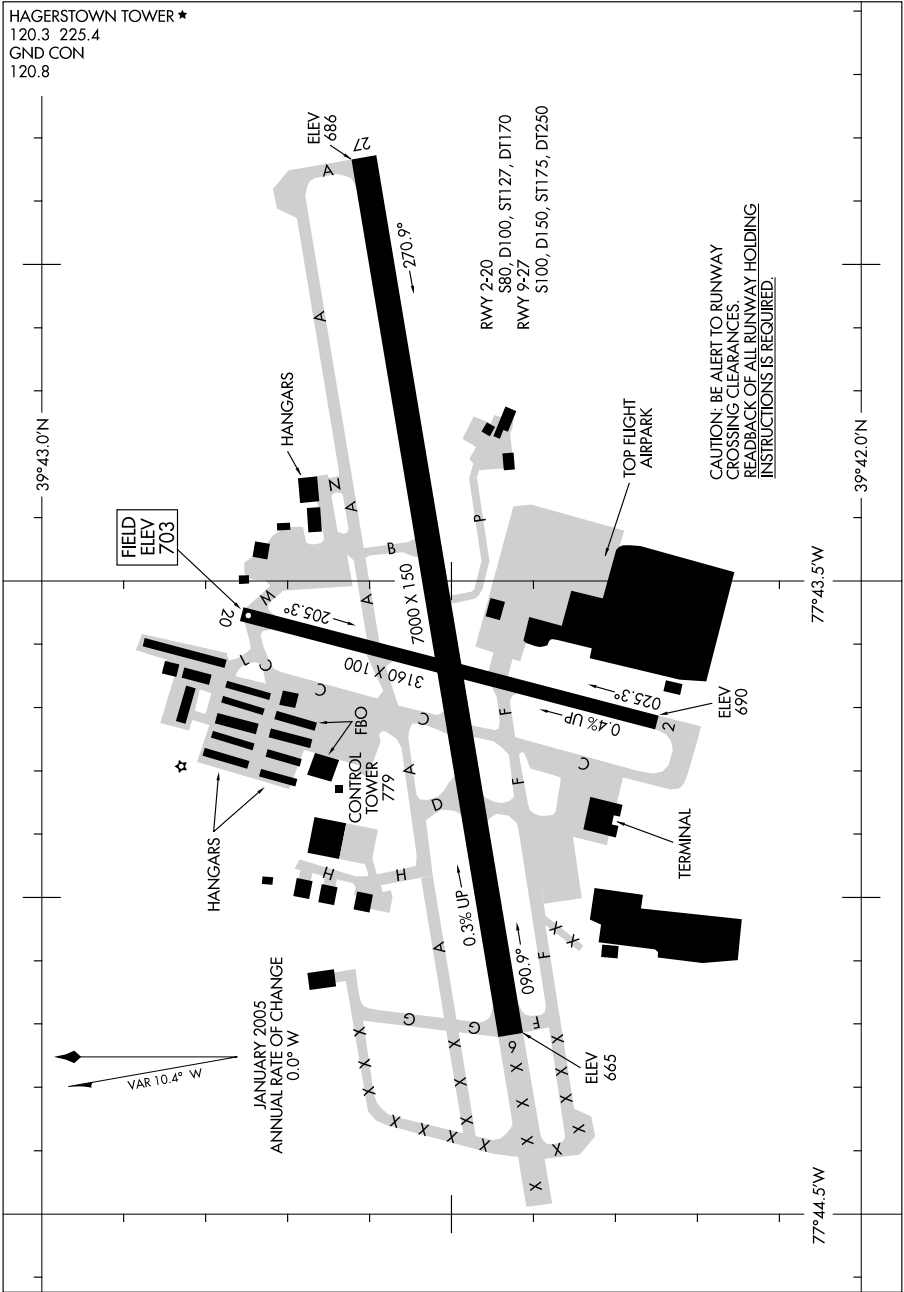
GROTON (NEW LONDON), CONNECTICUT  
GROTON-NEW LONDON (GON)

09071

09015

AIRPORT DIAGRAM

HAGERSTOWN RGNL-RICHARD A HENSON FIELD (HGR)  
AL-5114 (FAA)  
HAGERSTOWN, MARYLAND



AIRPORT DIAGRAM

HAGERSTOWN, MARYLAND  
HAGERSTOWN RGNL-RICHARD A HENSON FIELD (HGR)

09015



09127

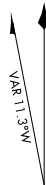
## AIRPORT DIAGRAM

AL-188 (FAA)

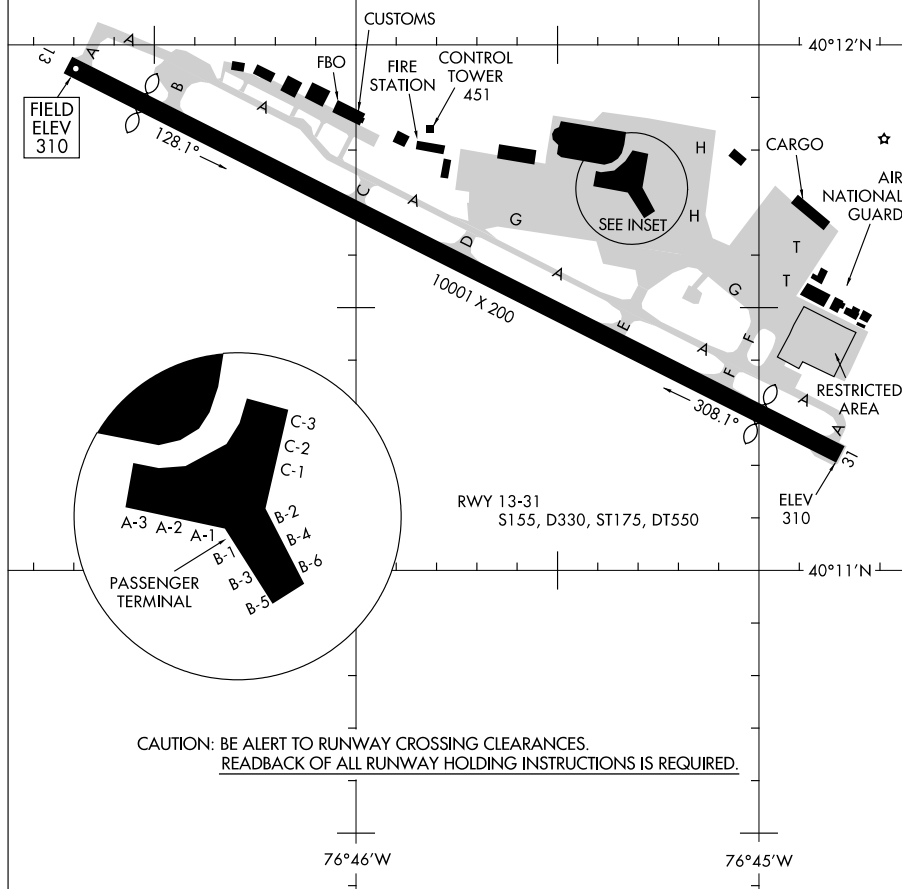
HARRISBURG INTL (MDT)  
HARRISBURG, PENNSYLVANIA

ATIS  
118.8  
HARRISBURG INTL TOWER  
124.8 269.35  
GND CON  
121.7 348.6

D



JANUARY 2005  
ANNUAL RATE OF CHANGE  
0.0°E



## AIRPORT DIAGRAM

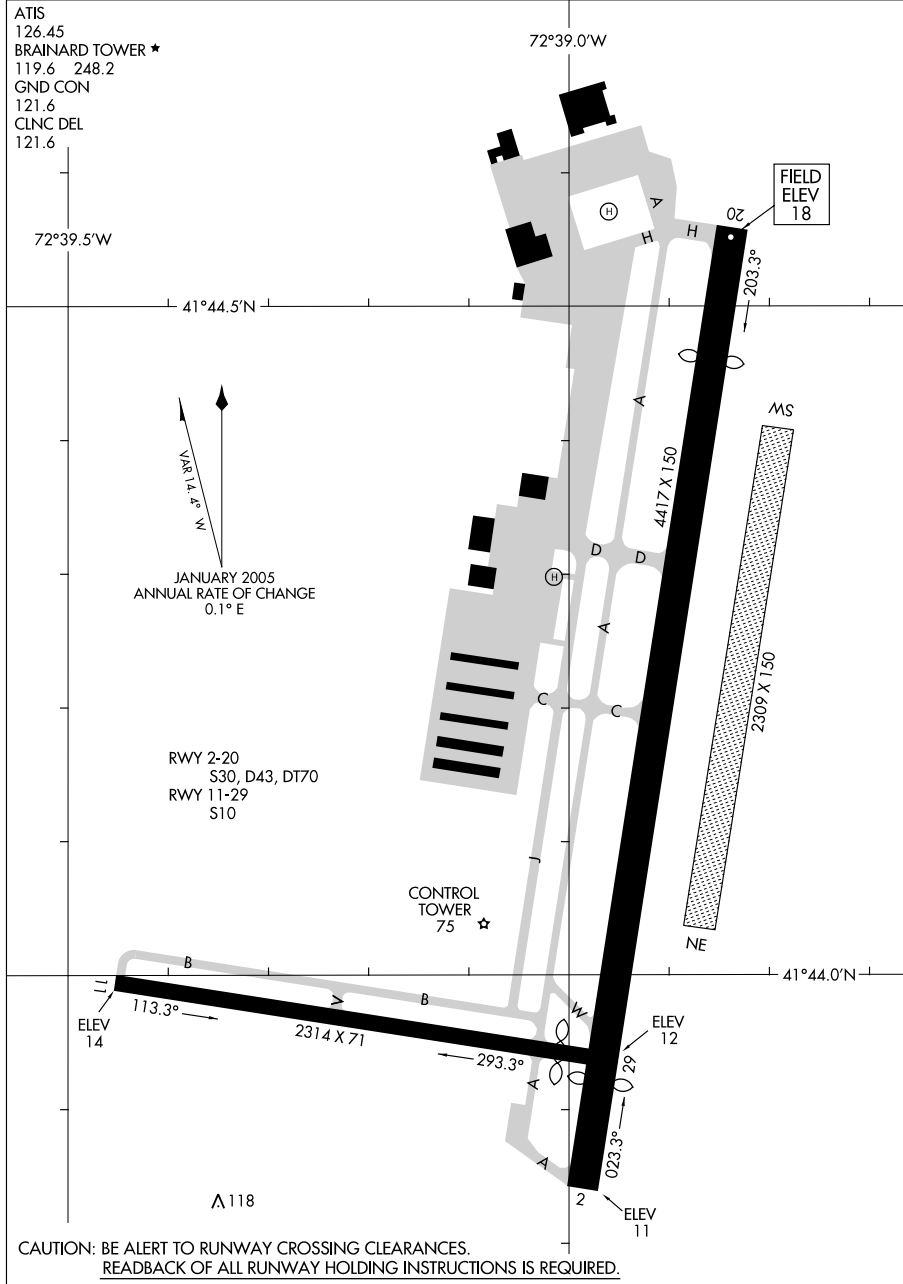
09127

HARRISBURG, PENNSYLVANIA  
HARRISBURG INTL (MDT)

09015

## AIRPORT DIAGRAM

AL-189 (FAA)

HARTFORD-BRAINARD (HFD)  
HARTFORD, CONNECTICUT

## AIRPORT DIAGRAM

HARTFORD, CONNECTICUT  
HARTFORD-BRAINARD (HFD)

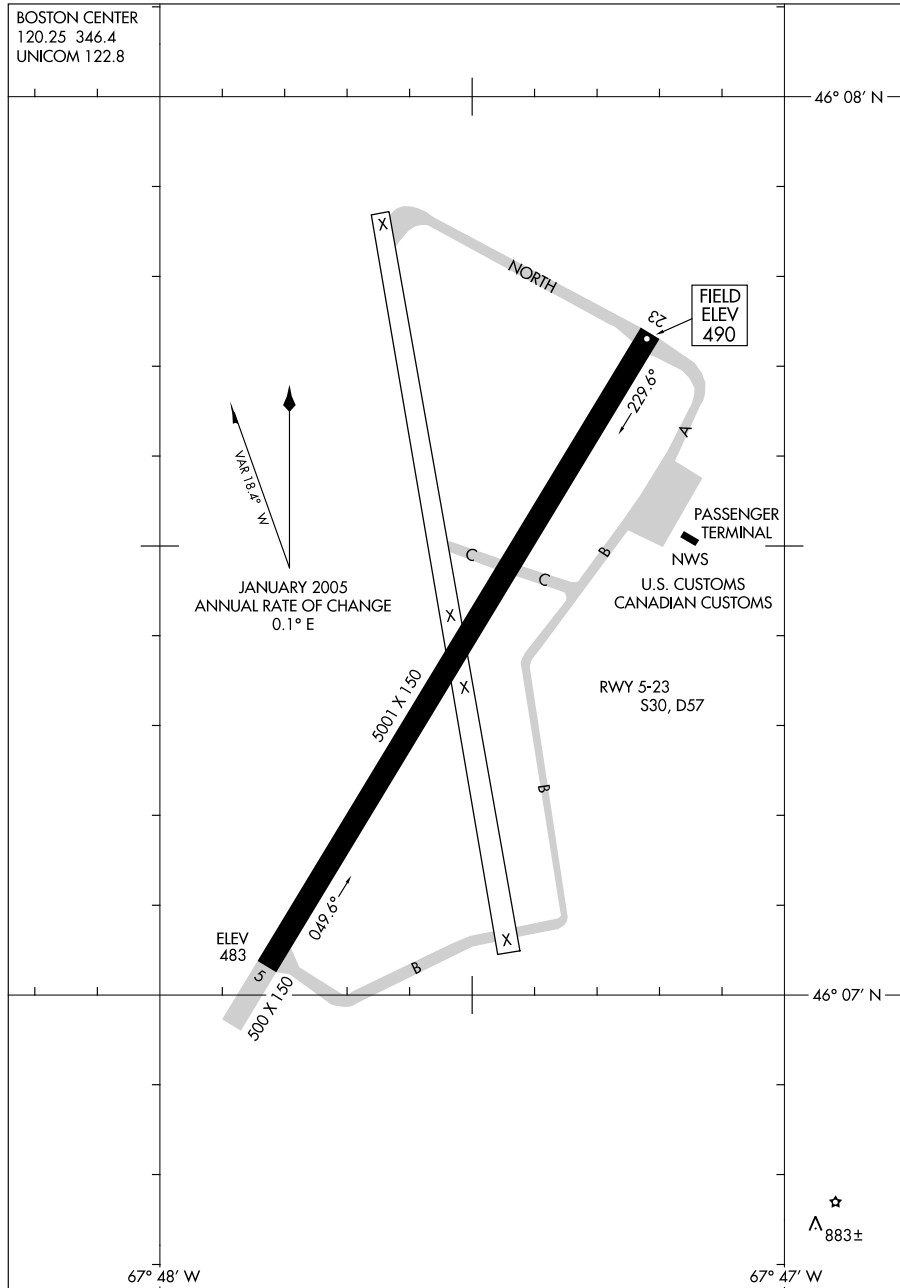
09015



07018

## AIRPORT DIAGRAM

AL-196 (FAA)

HOULTON INTL (HUL)  
HOULTON, MAINE

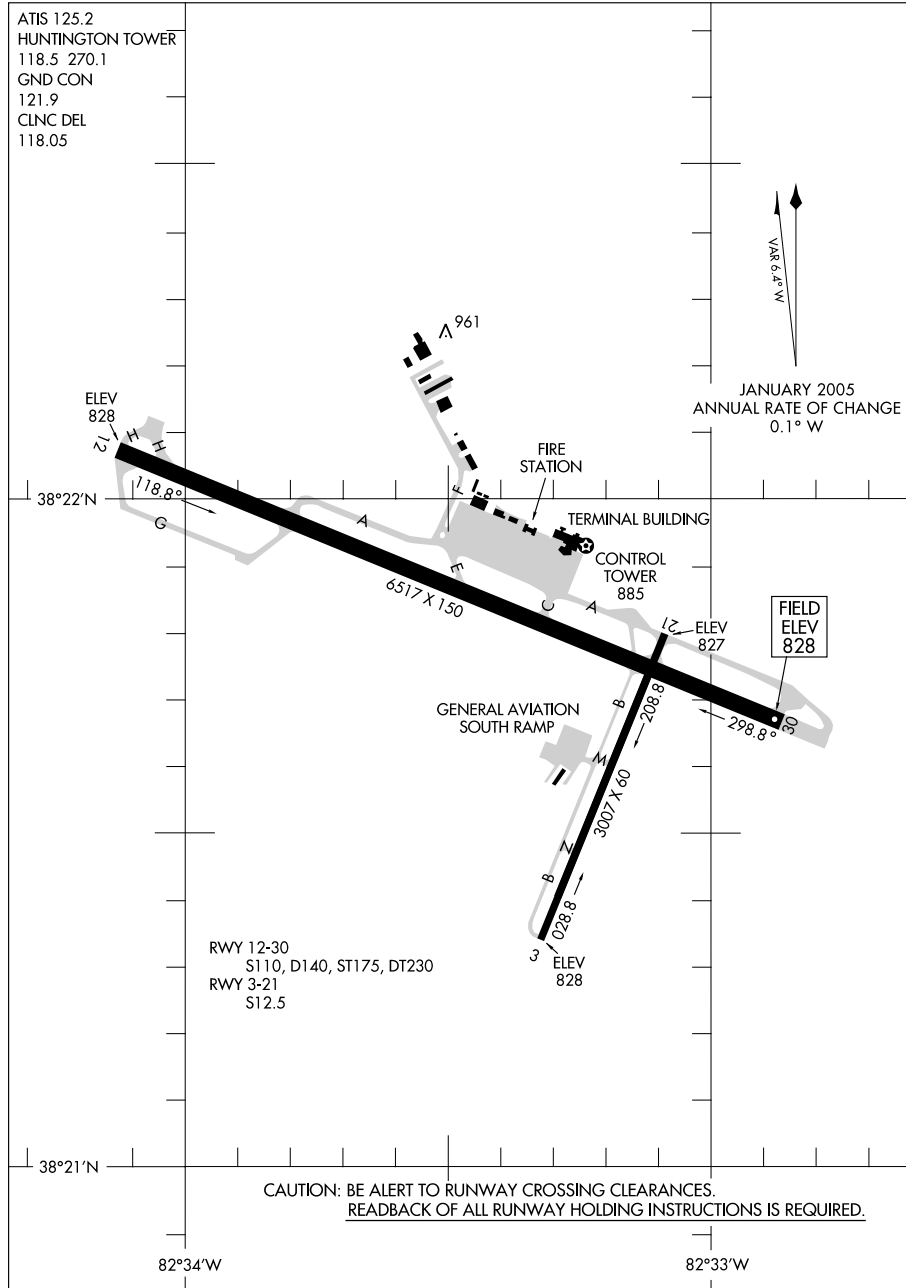
## AIRPORT DIAGRAM

07018

HOULTON, MAINE  
HOULTON INTL (HUL)

07074

## AIRPORT DIAGRAM

HUNTINGTON/ TRI-STATE/ MILTON J. FERGUSON FIELD (HTS)  
AL-532 (FAA) HUNTINGTON, WEST VIRGINIA

## AIRPORT DIAGRAM

07074

HUNTINGTON, WEST VIRGINIA  
HUNTINGTON/ TRI-STATE/ MILTON J. FERGUSON FIELD (HTS)

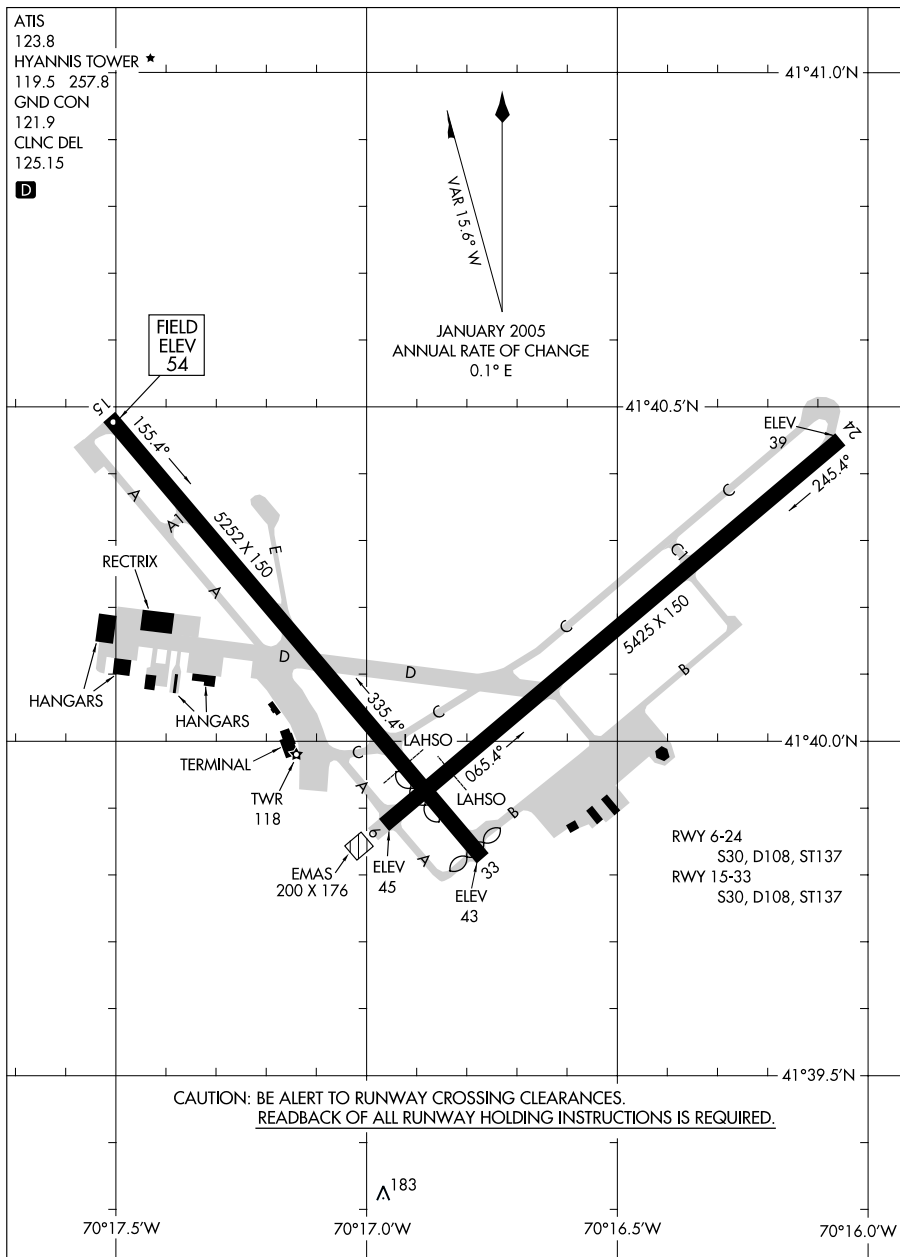
09239

HYANNIS/ BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD (HYA)

## AIRPORT DIAGRAM

AL-675 (FAA)

HYANNIS, MASSACHUSETTS



## AIRPORT DIAGRAM

09239

HYANNIS/ BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD (HYA)

HYANNIS, MASSACHUSETTS

09183

# AIRPORT DIAGRAM

AL-948 (FAA)

ISLIP/LONG ISLAND MACARTHUR (ISP)

ISLIP, NEW YORK

ATIS

120.725

LONG ISLAND TOWER ★

119.3 335.5

GND CON

135.3

CLNC DEL

121.85

RWY 6-24

S100, T170, D210, ST175, DT300

RWY 10-28

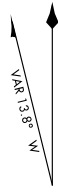
S32, D56, DT92

RWY 15R-33L

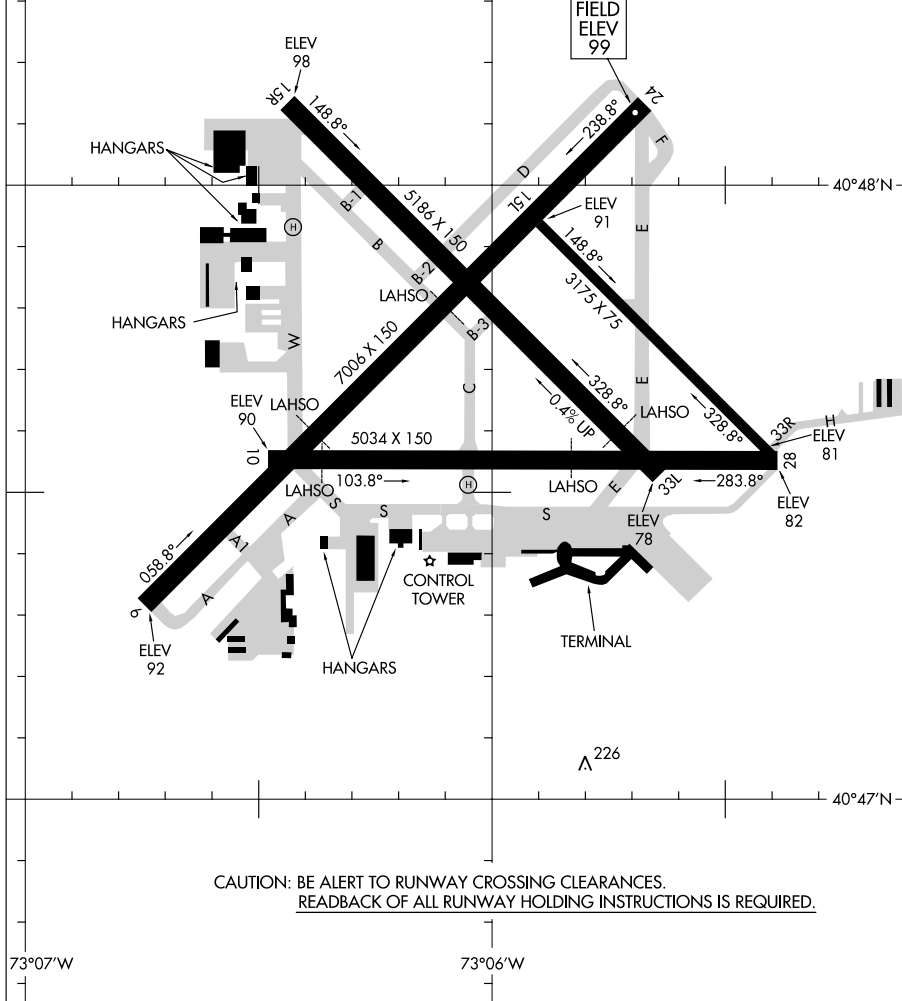
S100, D170, ST175, DT300

RWY 15L-33R

S25



JANUARY 2005  
ANNUAL RATE OF CHANGE  
0.0° E



# AIRPORT DIAGRAM

09183

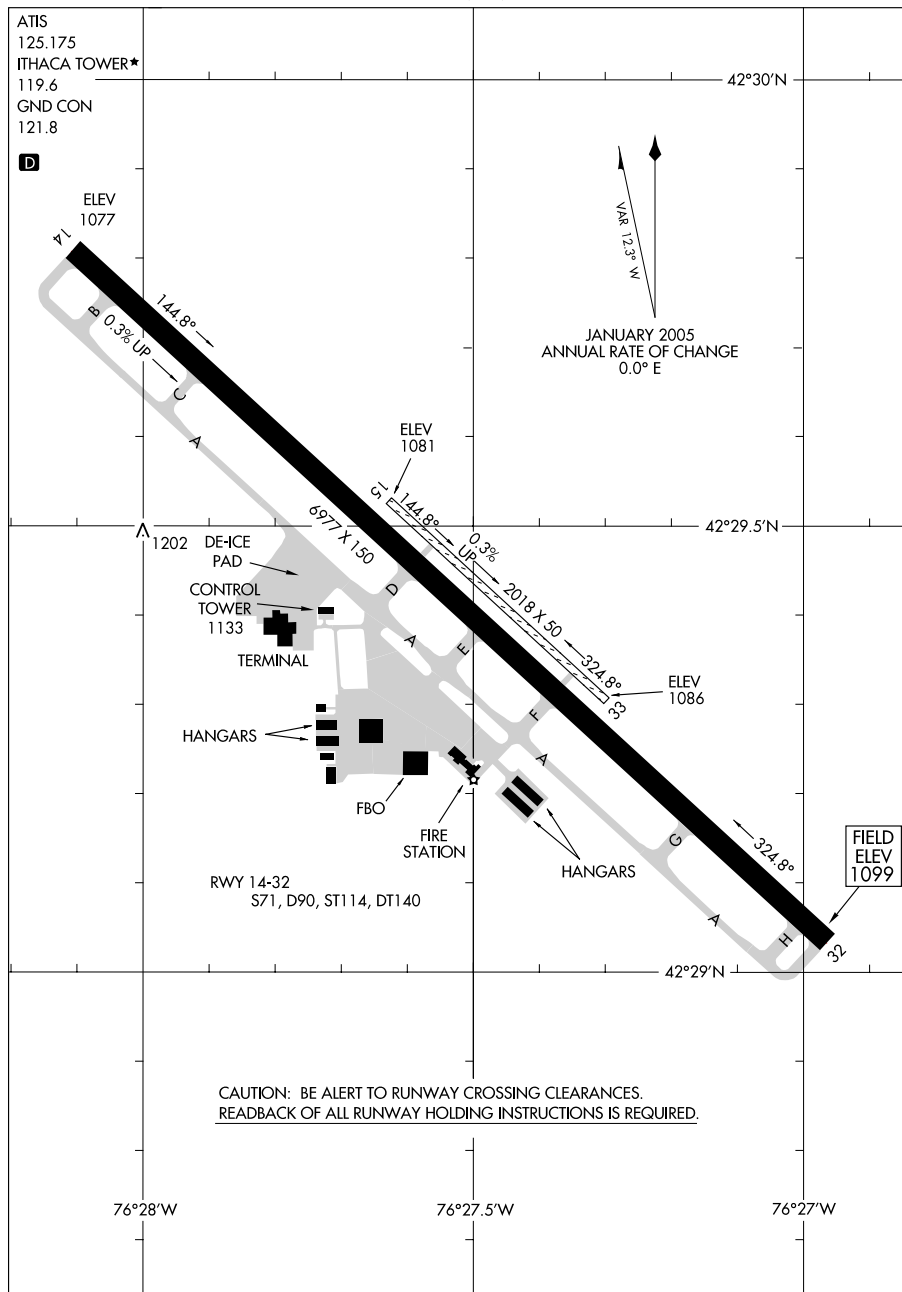
ISLIP, NEW YORK

ISLIP/LONG ISLAND MACARTHUR (ISP)

09239

## AIRPORT DIAGRAM

AL-779 (FAA)

ITHACA TOMPKINS RGNL (ITH)  
ITHACA, NEW YORK

## AIRPORT DIAGRAM

09239

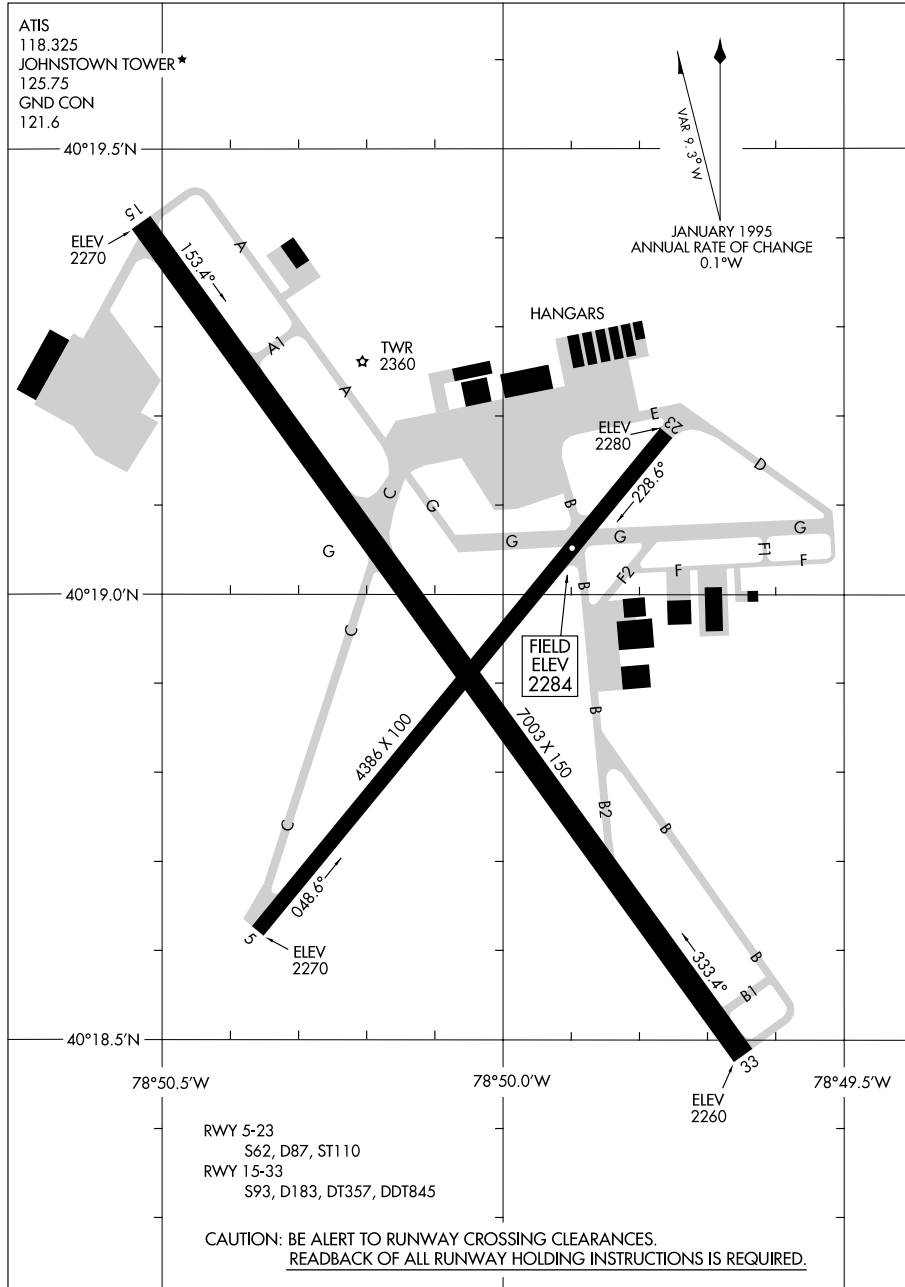
ITHACA, NEW YORK  
ITHACA TOMPKINS RGNL (ITH)

09127

## AIRPORT DIAGRAM

JOHNSTOWN / JOHN MURTHA JOHNSTOWN-CAMBRIA COUNTY (JST)  
AL-898 (FAA)

JOHNSTOWN, PENNSYLVANIA



## AIRPORT DIAGRAM

JOHNSTOWN / JOHN MURTHA JOHNSTOWN-CAMBRIA COUNTY (JST)  
JOHNSTOWN, PENNSYLVANIA

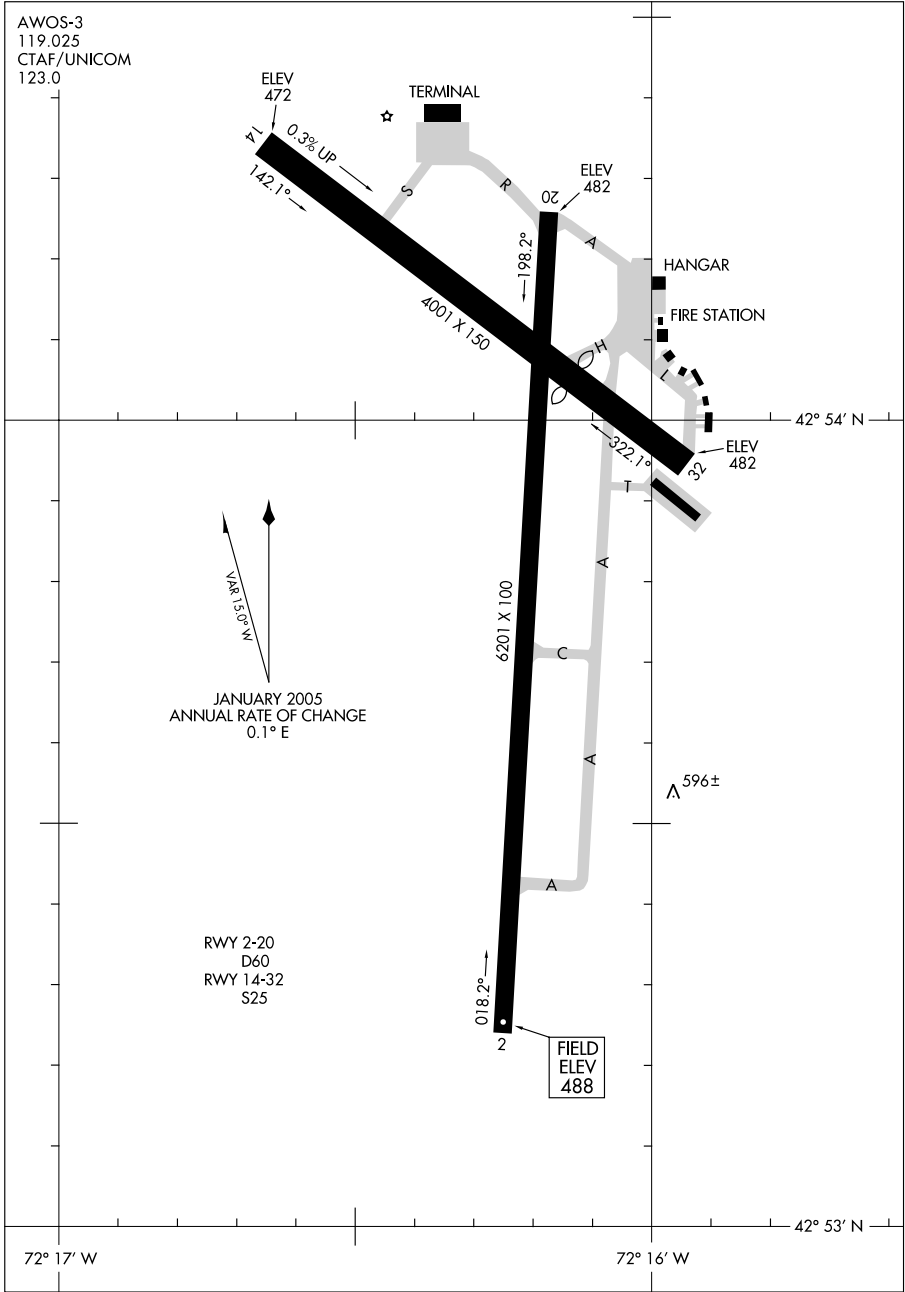
09127

09071

AIRPORT DIAGRAM

AL-868 (FAA)

KEENE / DILLANT-HOPKINS (EEN)  
KEENE, NEW HAMPSHIRE



AIRPORT DIAGRAM

09071

KEENE, NEW HAMPSHIRE  
KEENE / DILLANT-HOPKINS (EEN)

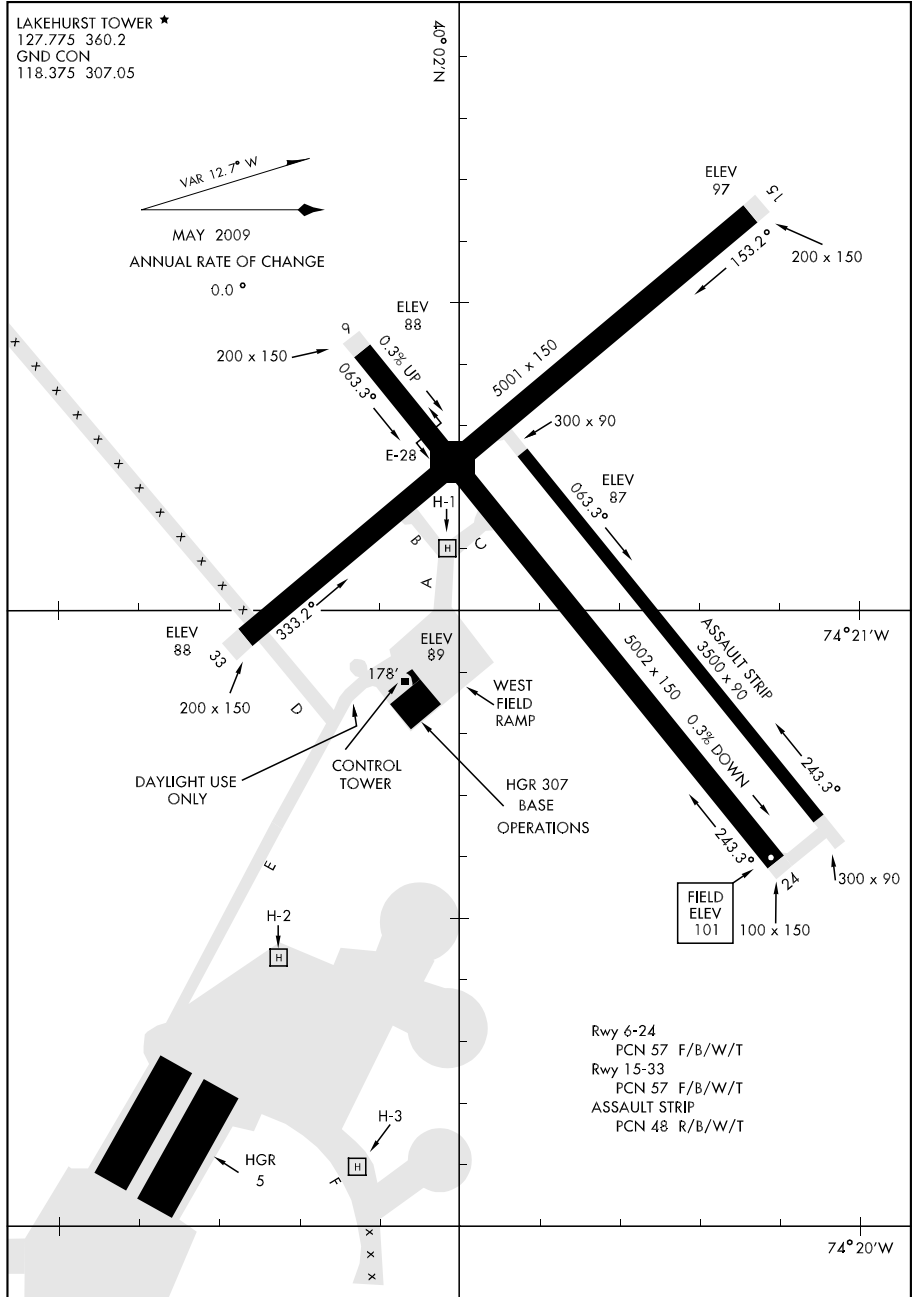
09127

LAKEHURST NAES (MAXFIELD FLD) (KNEL)

# AIRPORT DIAGRAM

AFD-223 [USN]

LAKEHURST, NEW JERSEY



# AIRPORT DIAGRAM

LAKEHURST, NEW JERSEY

LAKEHURST NAES (MAXFIELD FLD) (KNEL)

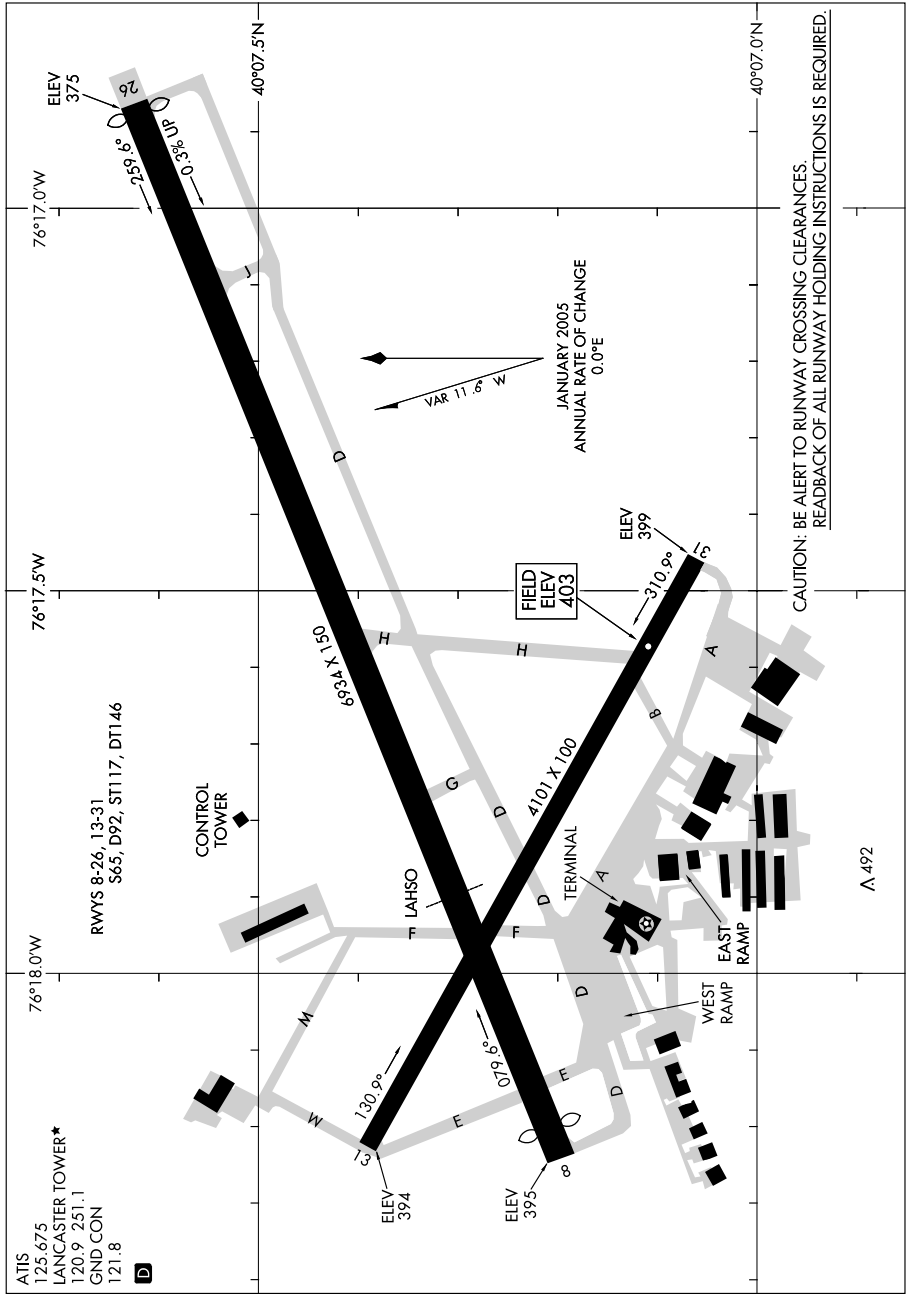


09239

AIRPORT DIAGRAM

AL-927 (FAA)

LANCASTER (LNS)  
LANCASTER, PENNSYLVANIA



AIRPORT DIAGRAM

LANCASTER, PENNSYLVANIA  
LANCASTER (LNS)

09239

HAMPTON, VIRGINIA



NE, 22 OCT 2009 to 17 DEC 2009

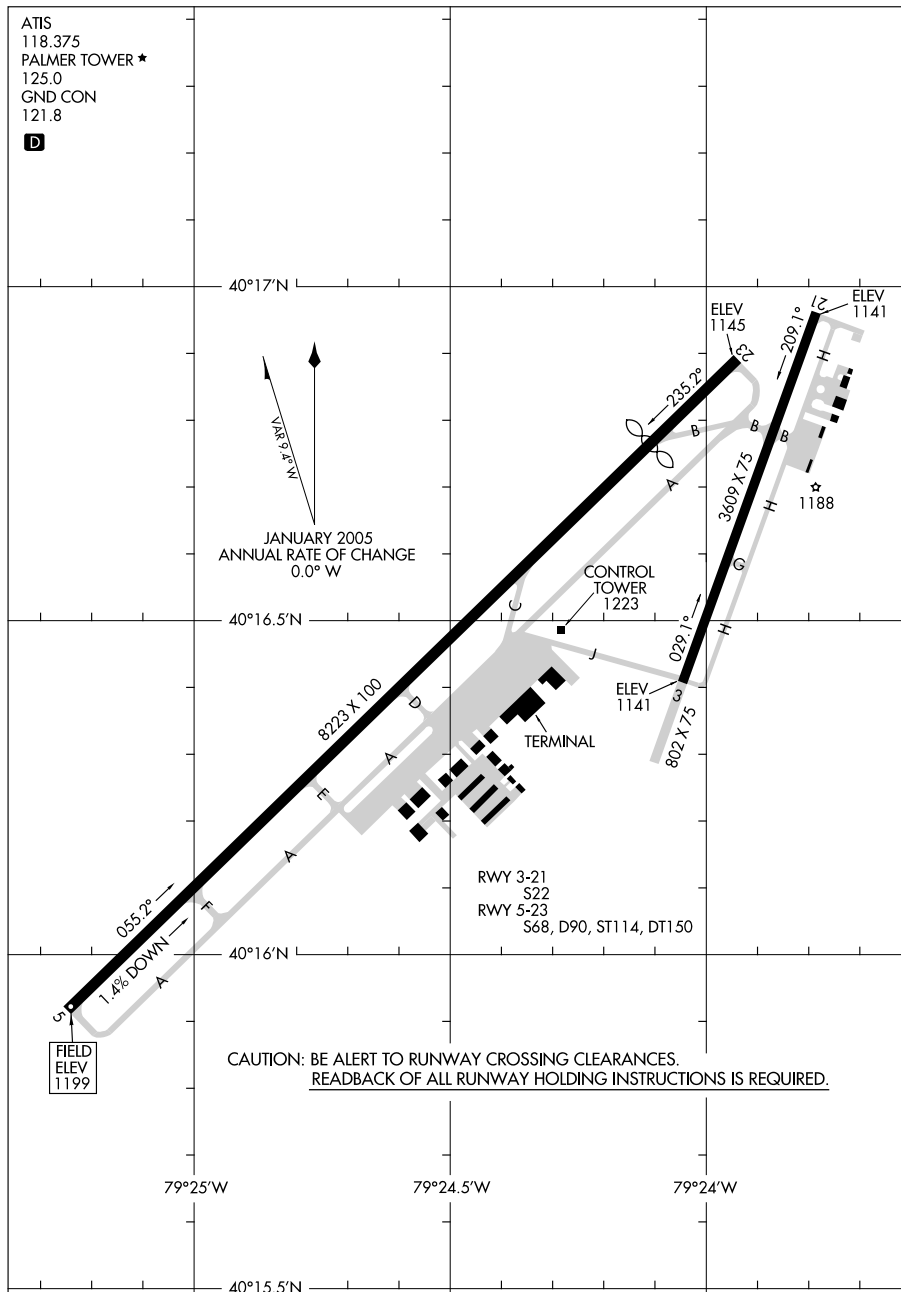
09015

## AIRPORT DIAGRAM

AL-5125 (FAA)

LATROBE/ARNOLD PALMER RGNL (LBE)

LATROBE, PENNSYLVANIA



## AIRPORT DIAGRAM

09015

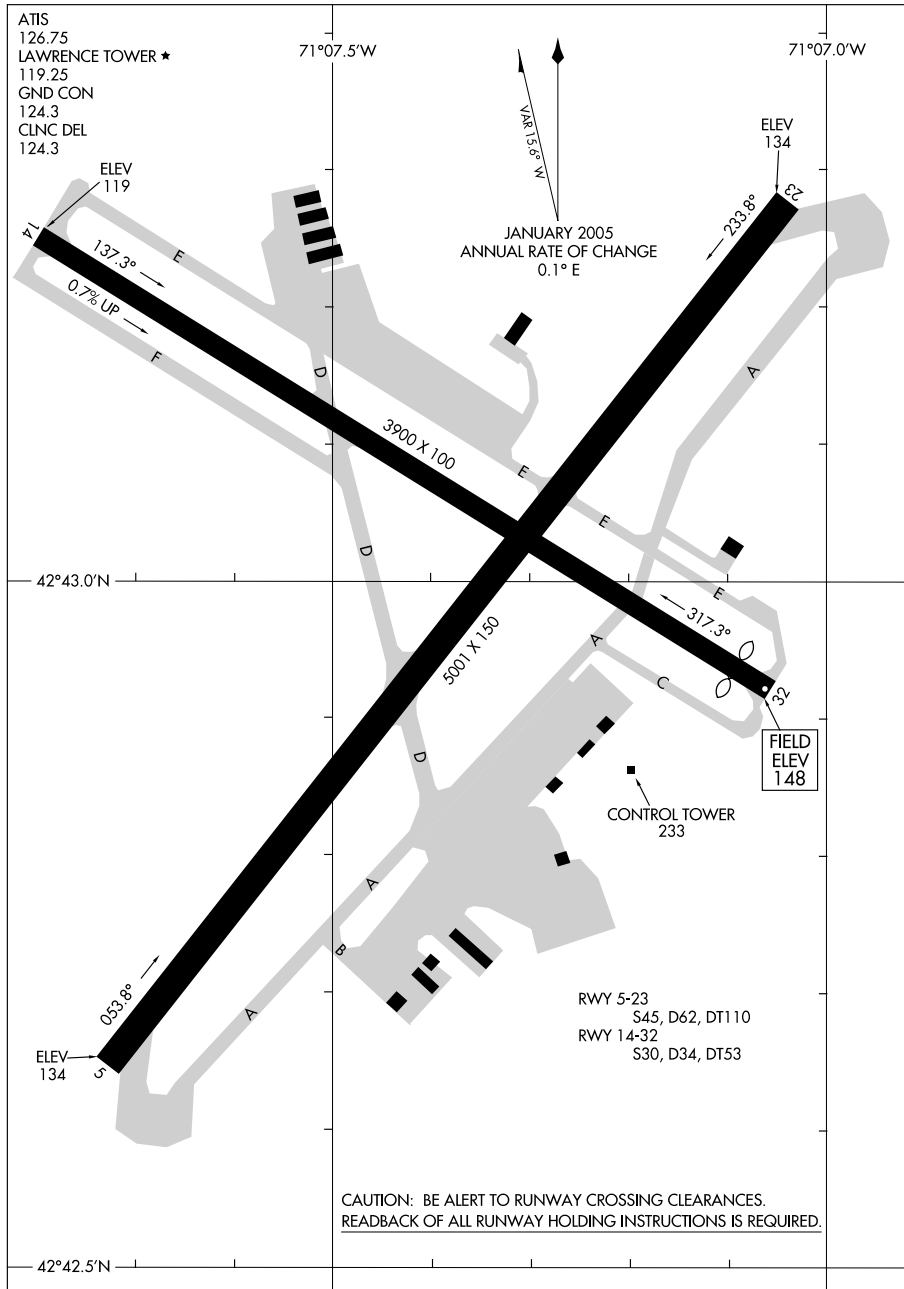
LATROBE, PENNSYLVANIA  
LATROBE/ARNOLD PALMER RGNL (LBE)

09015

# AIRPORT DIAGRAM

AL-654 (FAA)

LAWRENCE MUNI (LWM)  
LAWRENCE, MASSACHUSETTS



# AIRPORT DIAGRAM

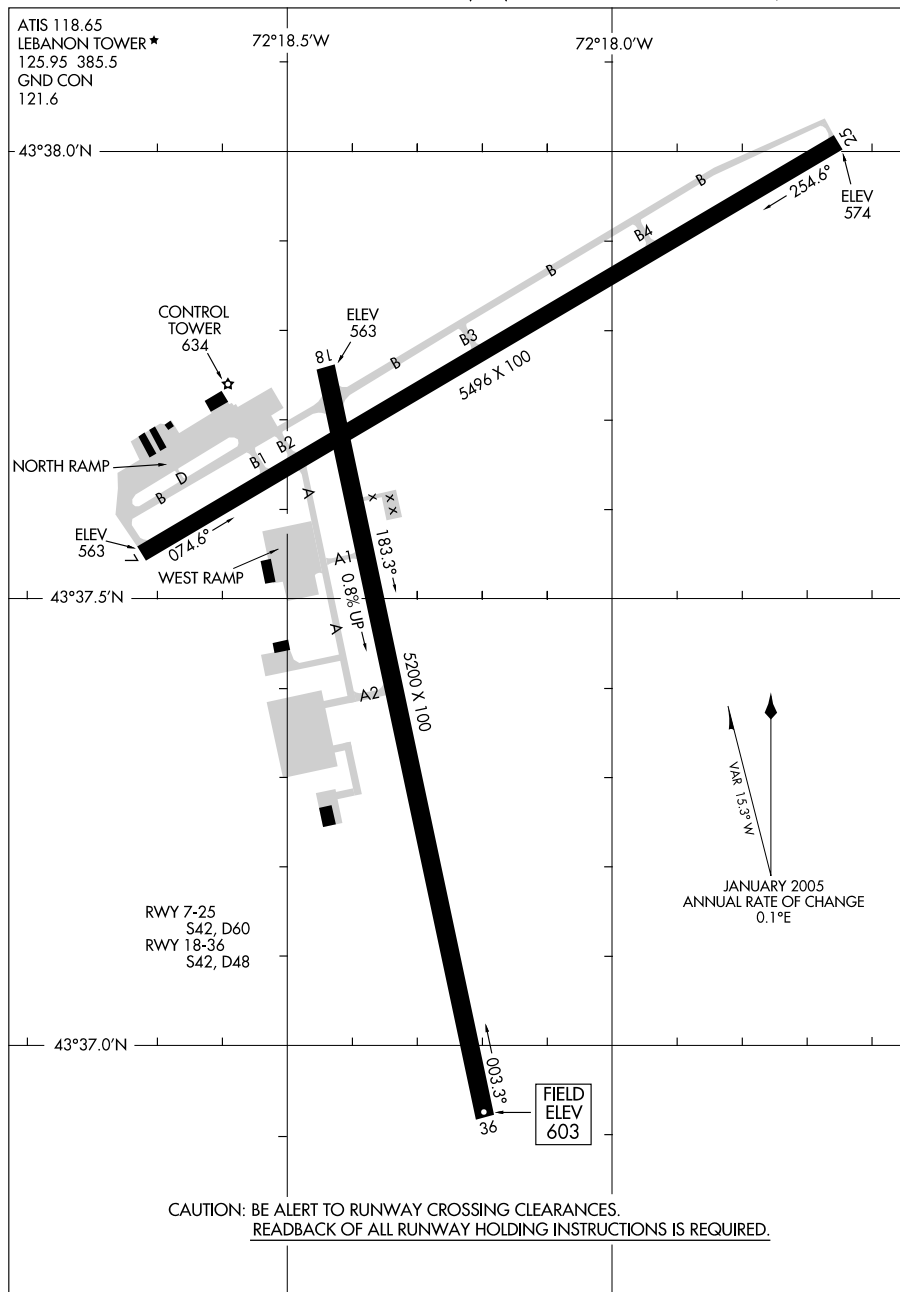
09015

LAWRENCE, MASSACHUSETTS  
LAWRENCE MUNI (LWM)

08269

## AIRPORT DIAGRAM

AL-859 (FAA)

LEBANON MUNI (LEB)  
LEBANON, NEW HAMPSHIRE

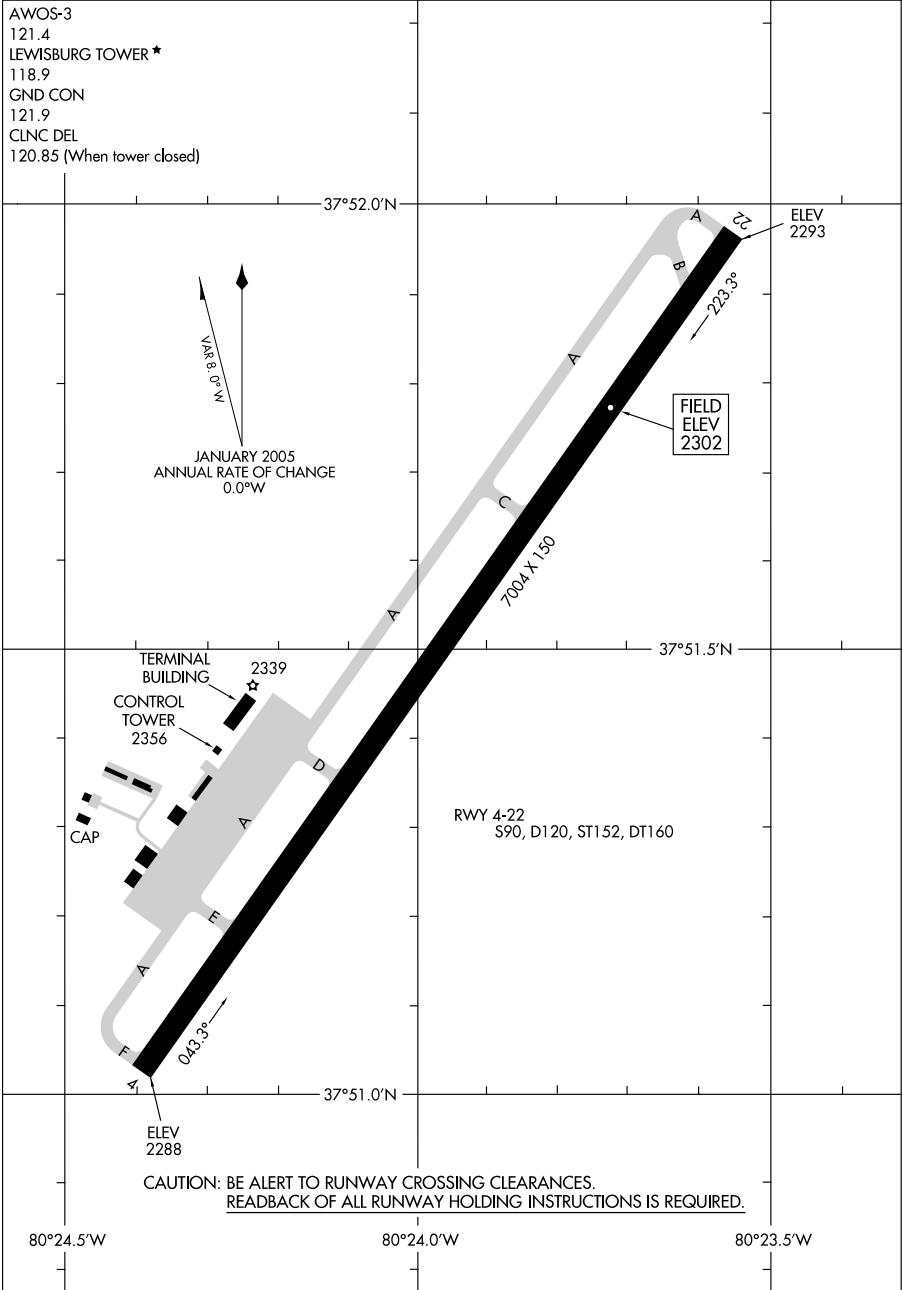
## AIRPORT DIAGRAM

08269

LEBANON, NEW HAMPSHIRE  
LEBANON MUNI (LEB)

06271  
**AIRPORT DIAGRAM**

AL-5601 (FAA)  
LEWISBURG/ GREENBRIER VALLEY (LWB)  
LEWISBURG, WEST VIRGINIA



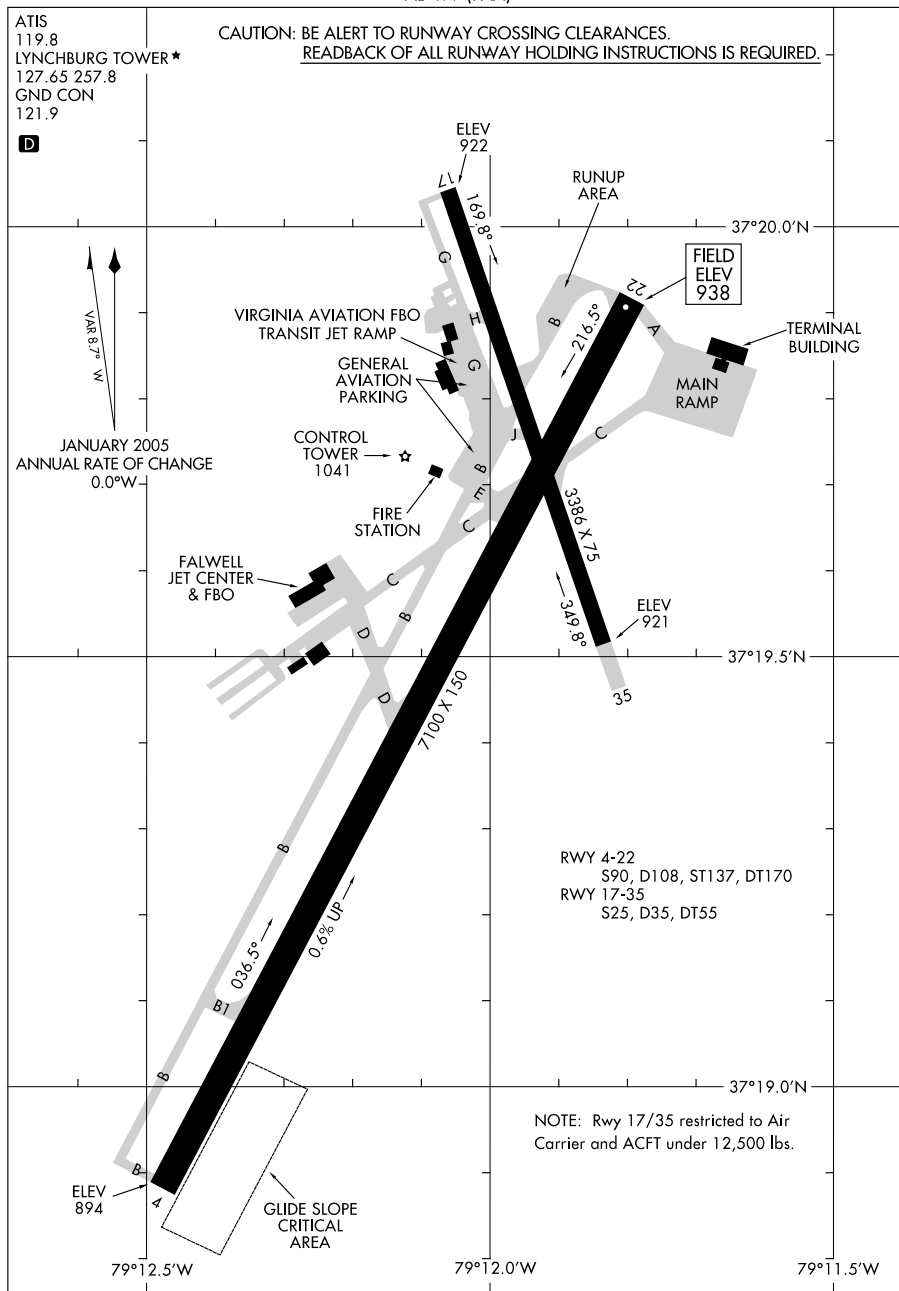
**AIRPORT DIAGRAM**  
06271

LEWISBURG, WEST VIRGINIA  
LEWISBURG/ GREENBRIER VALLEY (LWB)

09015

## AIRPORT DIAGRAM

LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)  
AL-499 (FAA)  
LYNCHBURG, VIRGINIA



## AIRPORT DIAGRAM

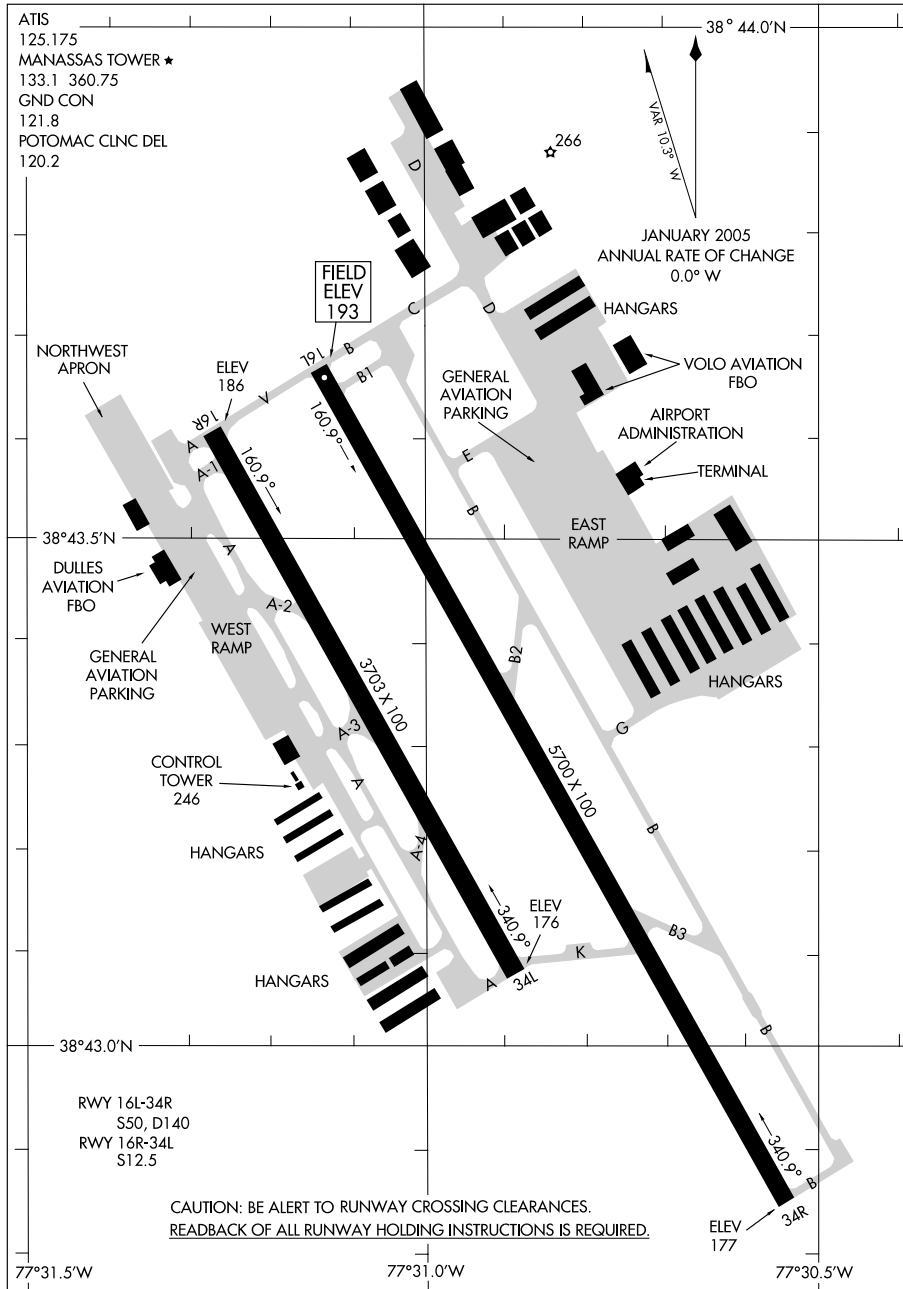
09015

LYNCHBURG, VIRGINIA  
LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)

09015

## AIRPORT DIAGRAM

MANASSAS RNGL/HARRY P. DAVIS FIELD (HEF)  
AL-5326 (FAA) MANASSAS, VIRGINIA



## AIRPORT DIAGRAM

09015

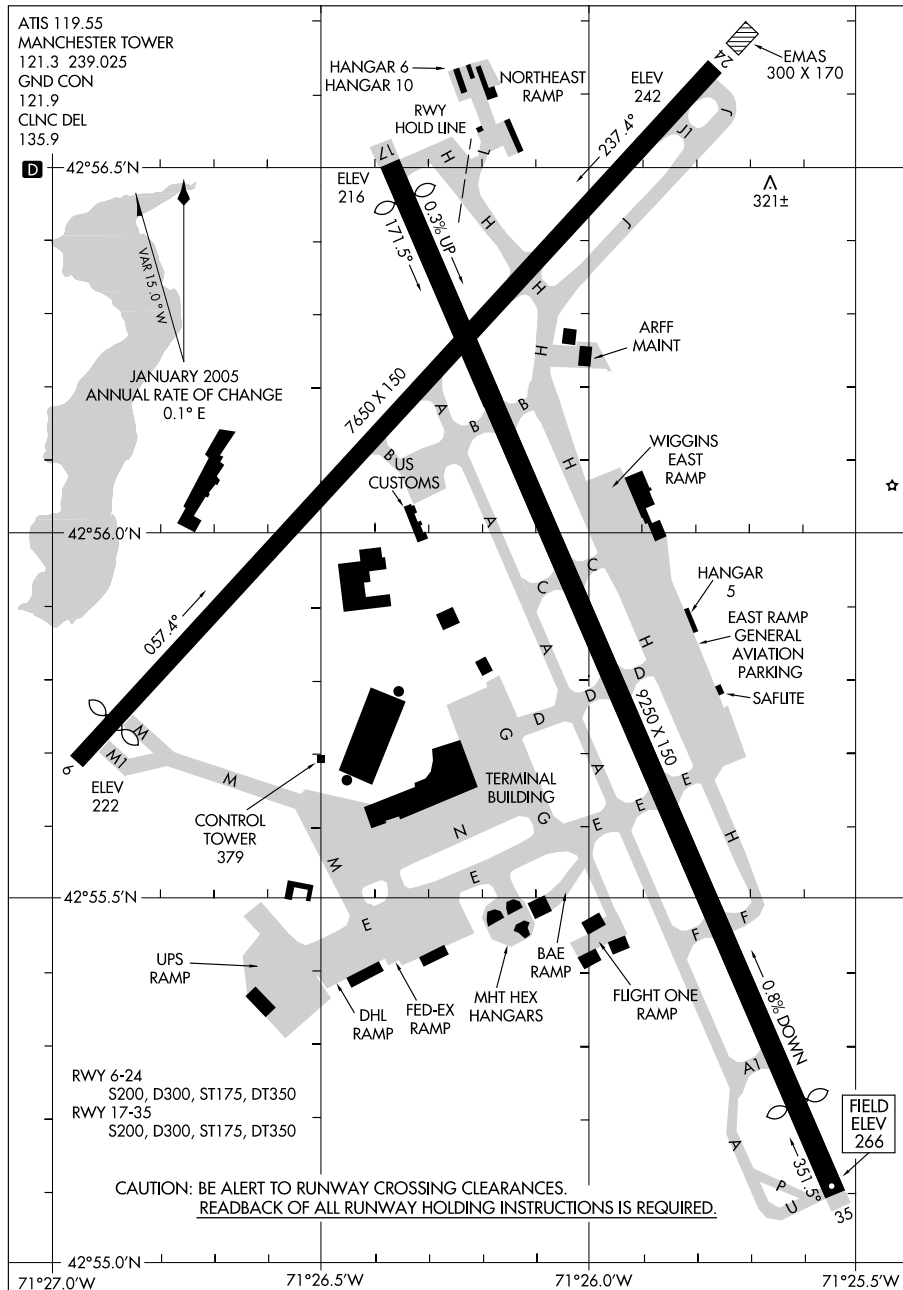
MANASSAS, VIRGINIA  
MANASSAS RNGL/HARRY P. DAVIS FIELD (HEF)



08325

## AIRPORT DIAGRAM

AL-246 (FAA)

MANCHESTER (MHT)  
MANCHESTER, NEW HAMPSHIRE

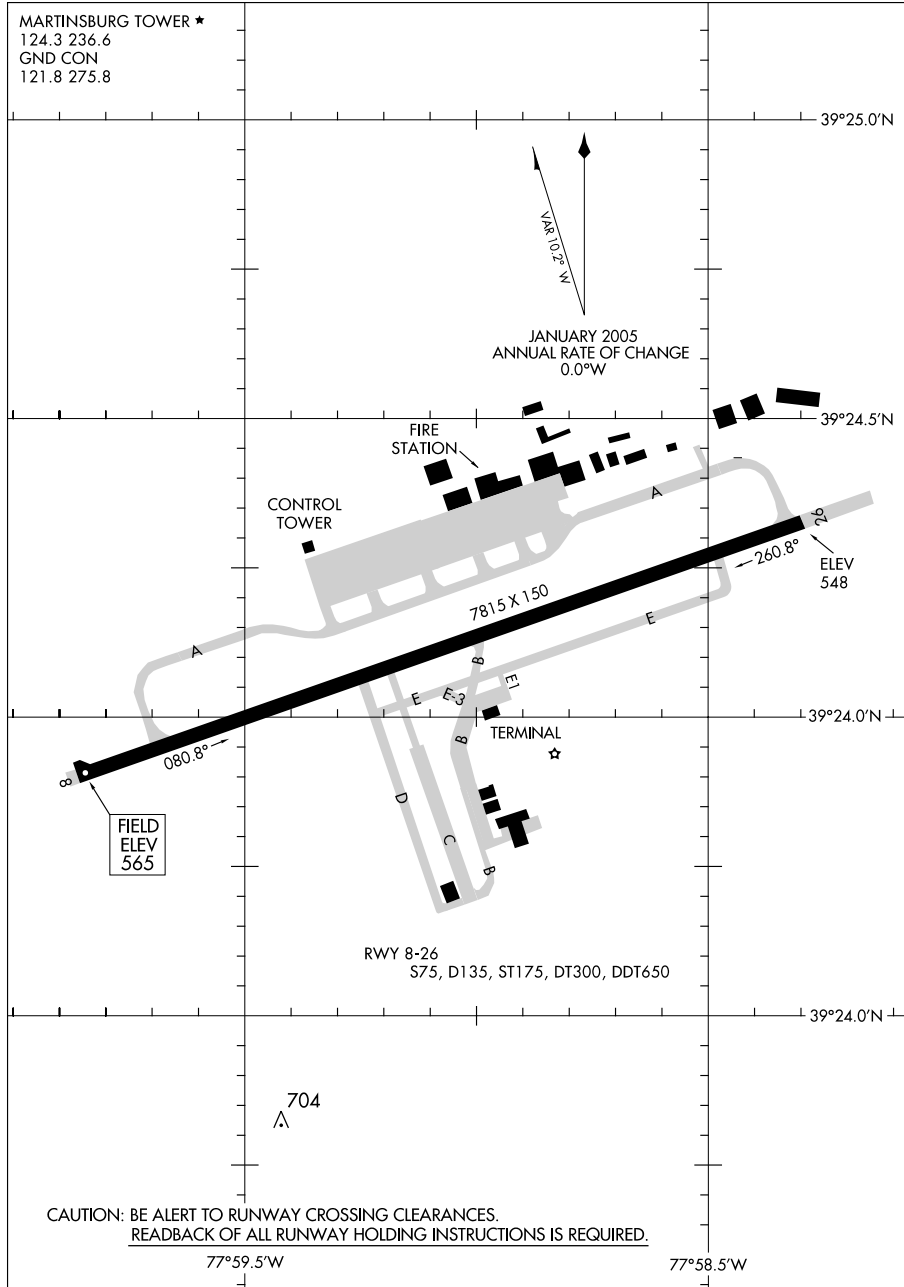
## AIRPORT DIAGRAM

08325

08325

# AIRPORT DIAGRAM

MARTINSBURG/  
EASTERN WEST VIRGINIA RGNL/SHEPHERD FIELD (MR.B)  
AL-249 (FAA) MARTINSBURG, WEST VIRGINIA



# AIRPORT DIAGRAM

08325

MARTINSBURG/  
EASTERN WEST VIRGINIA RGNL/SHEPHERD FIELD (MR.B)

MARTINSBURG, WEST VIRGINIA

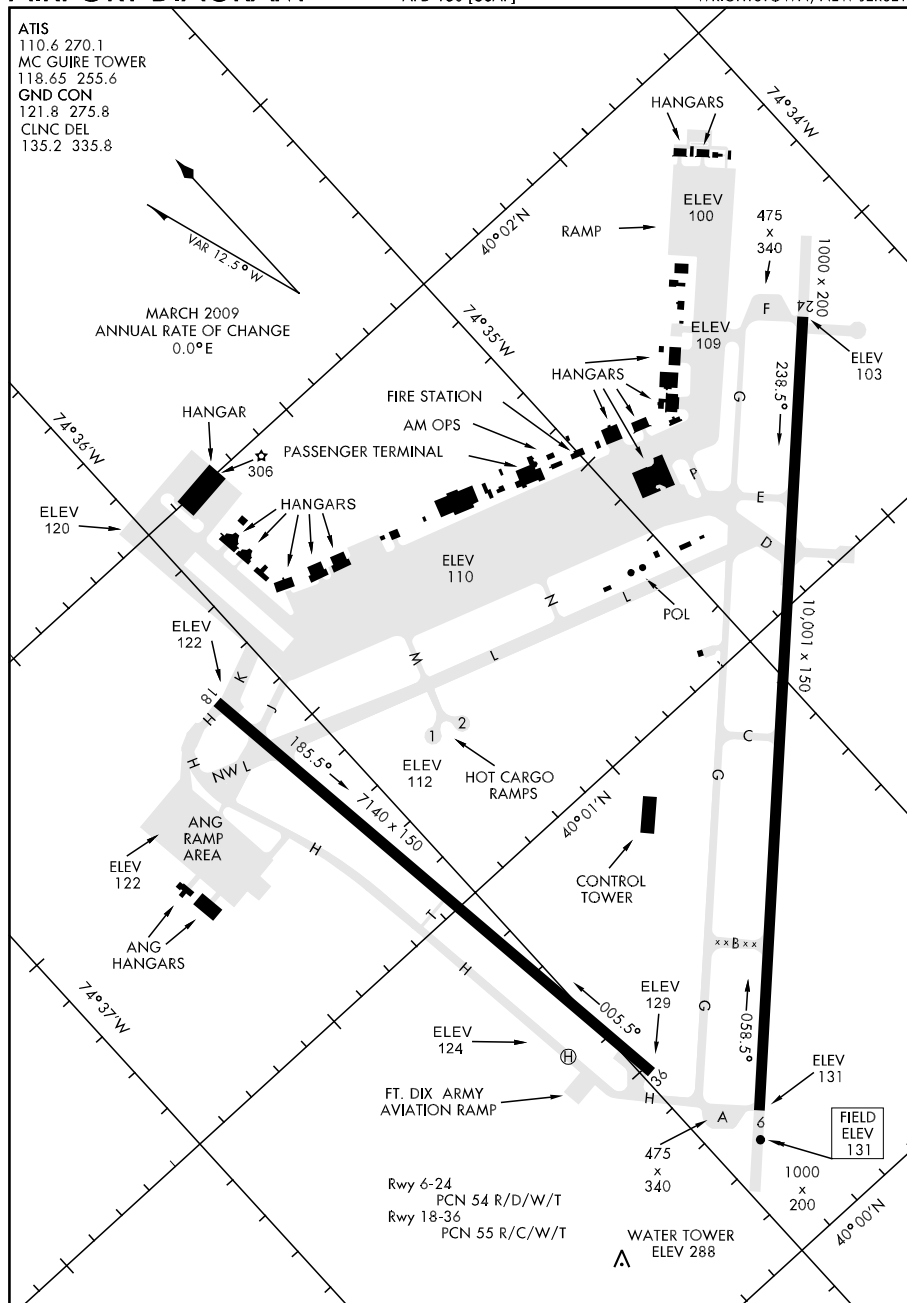
09071

## AIRPORT DIAGRAM

AFD-150 [USAF]

MC GUIRE AFB (KWRI)

WRIGHTSTOWN, NEW JERSEY



## AIRPORT DIAGRAM

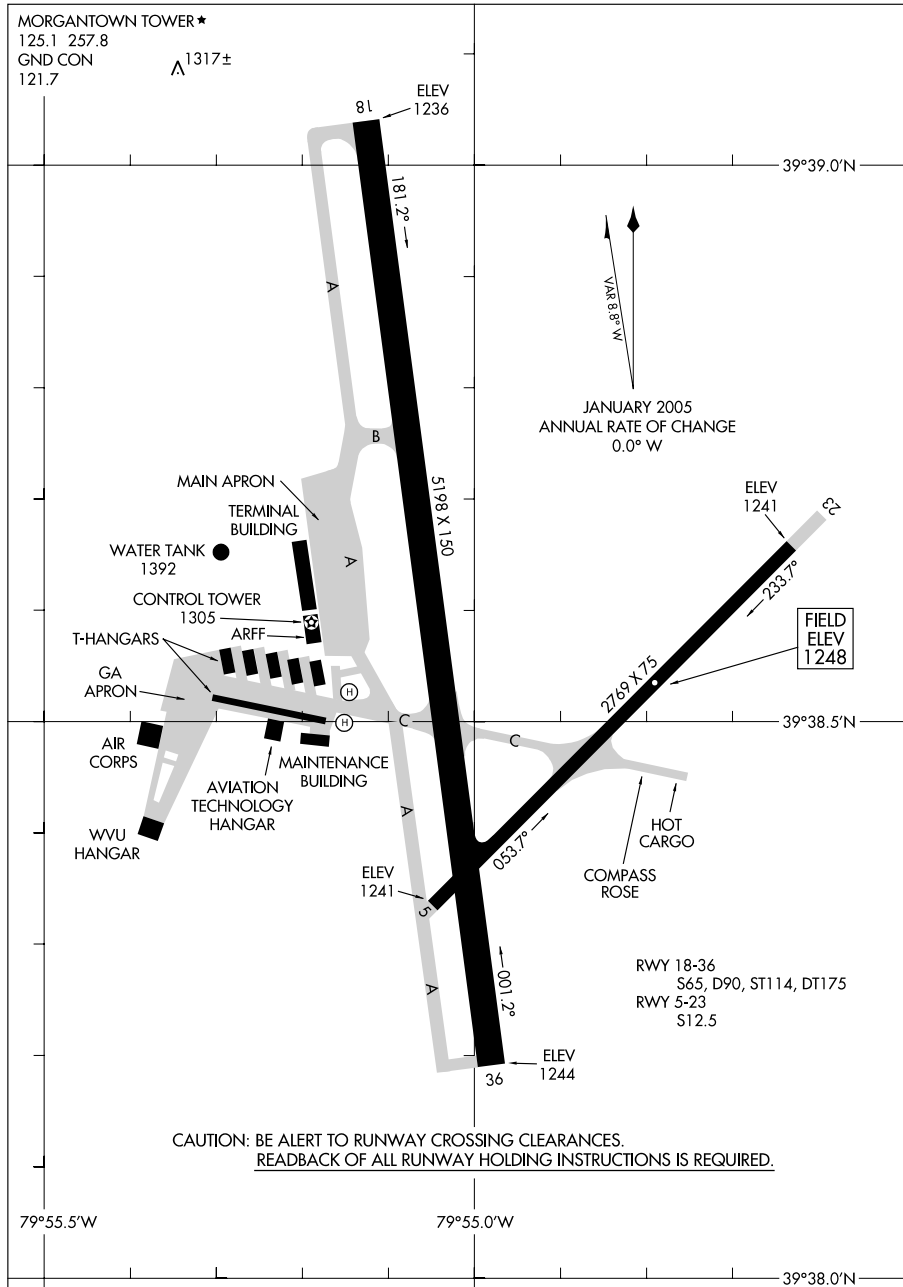
WGS DATUM

WRIGHTSTOWN, NEW JERSEY

MC GUIRE AFB (KWRI)

06271

## AIRPORT DIAGRAM

MORGANTOWN MUNI-WALTER L. BILL HART FIELD (MGW)  
AL-479 (FAA) MORGANTOWN, WEST VIRGINIA

## AIRPORT DIAGRAM

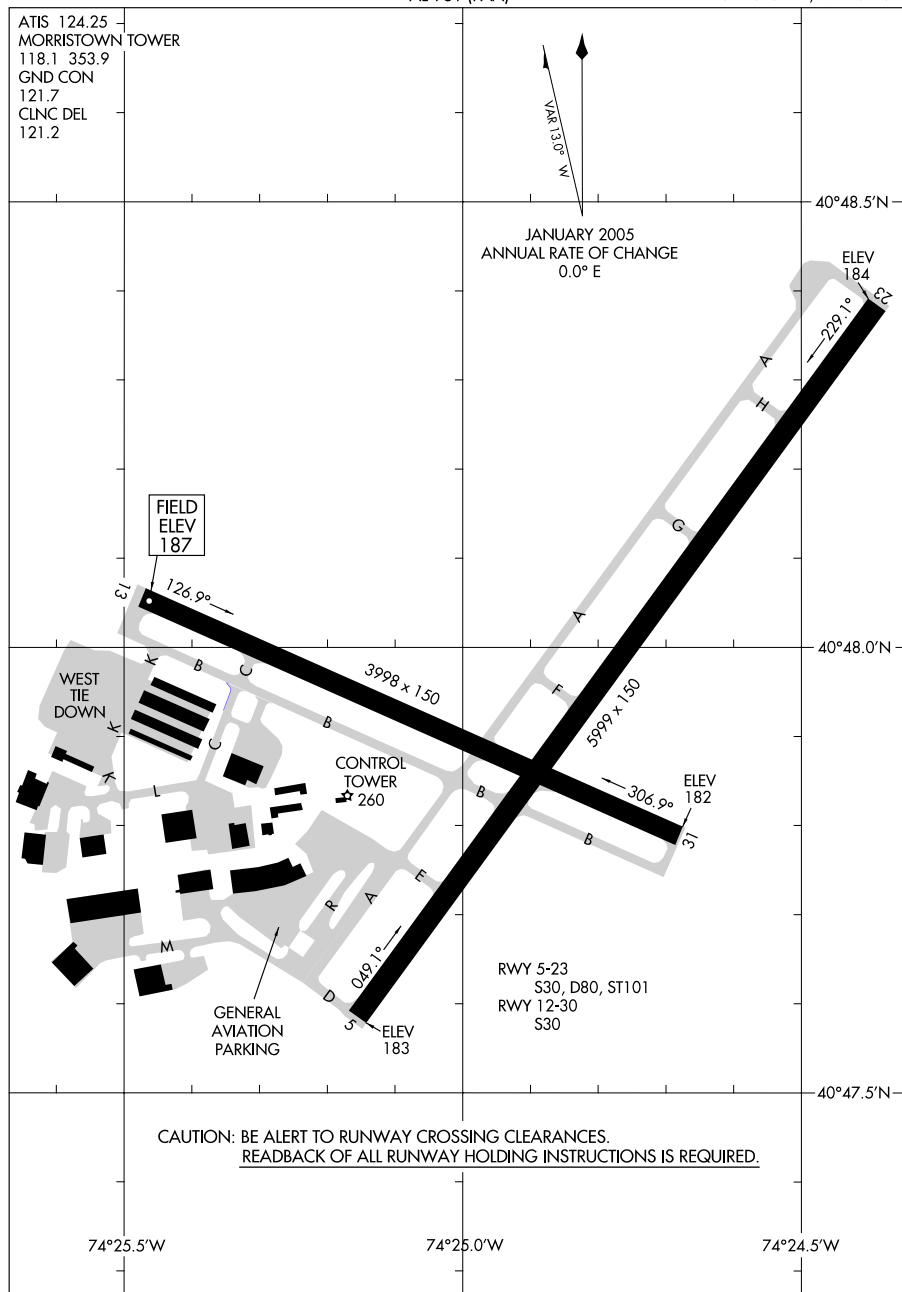
06271

MORGANTOWN, WEST VIRGINIA  
MORGANTOWN MUNI-WALTER L. BILL HART FIELD (MGW)

06327

## AIRPORT DIAGRAM

AL-931 (FAA)

MORRISTOWN MUNI (MMU)  
MORRISTOWN, NEW JERSEY

## AIRPORT DIAGRAM

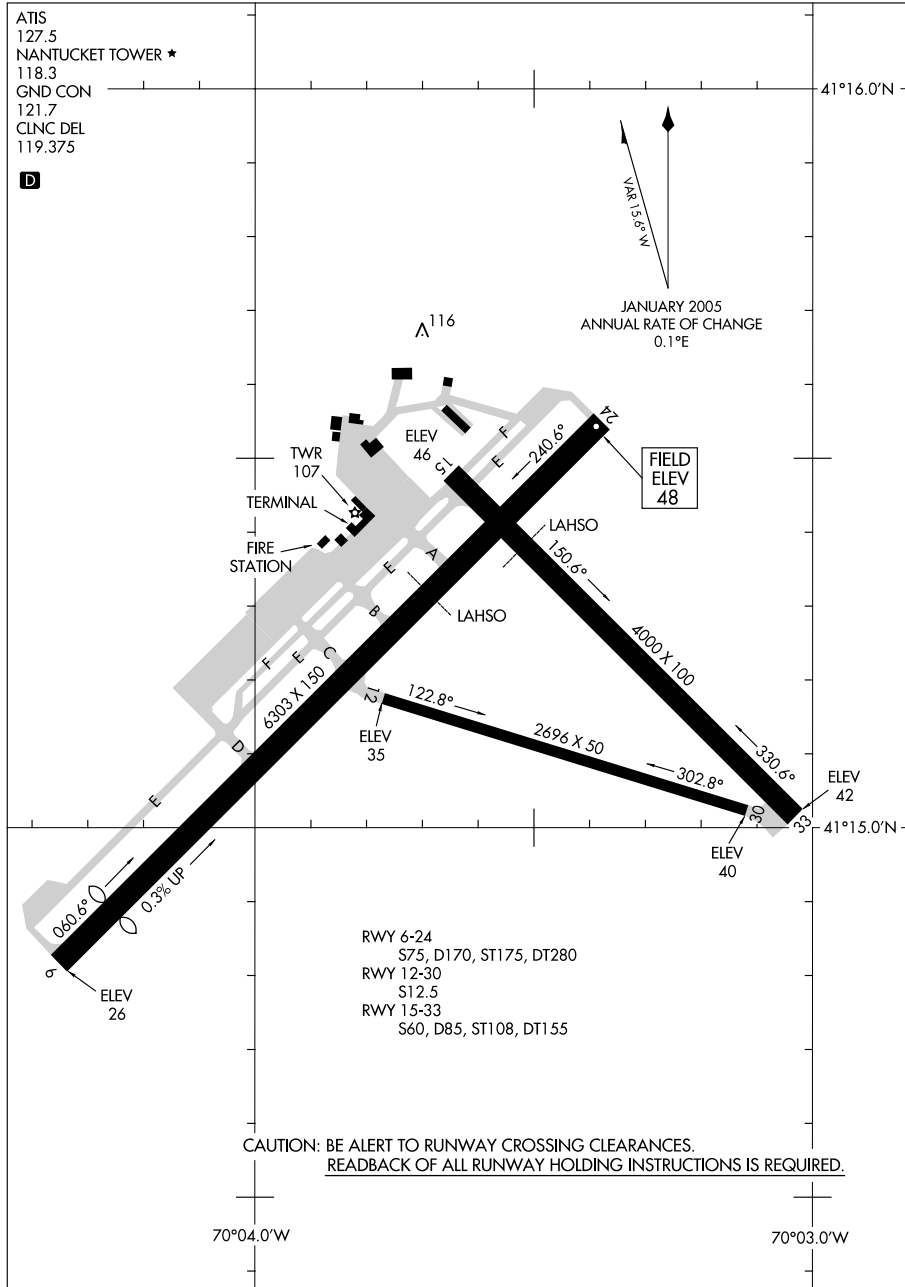
06327

MORRISTOWN, NEW JERSEY  
MORRISTOWN MUNI (MMU)

09239

## AIRPORT DIAGRAM

AL-659 (FAA)

NANTUCKET MEMORIAL (ACK)  
NANTUCKET, MASSACHUSETTS

## AIRPORT DIAGRAM

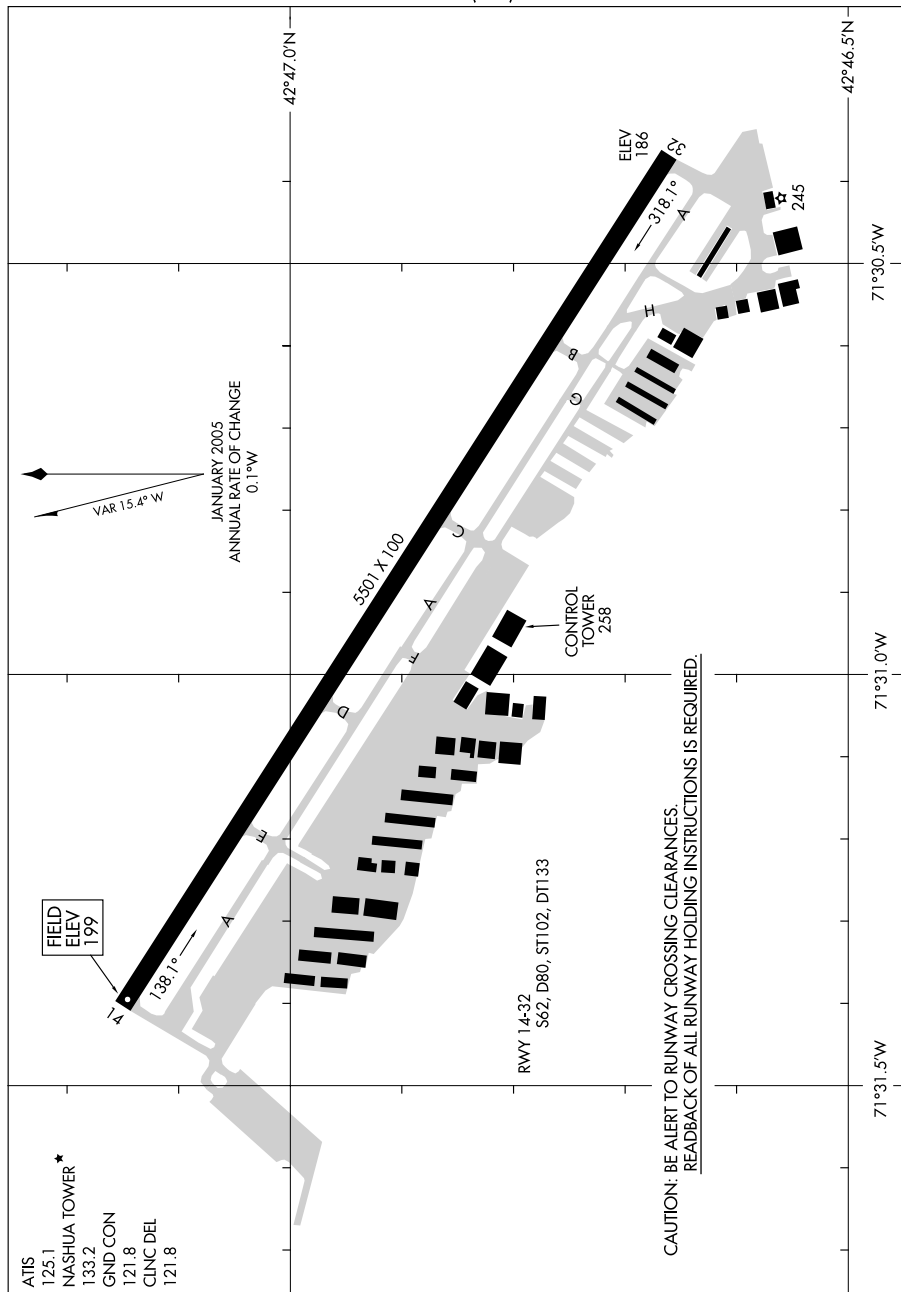
09239

NANTUCKET, MASSACHUSETTS  
NANTUCKET MEMORIAL (ACK)

09239

## AIRPORT DIAGRAM

AL-5036 (FAA)

NASHUA / BOIRE FIELD (ASH)  
NASHUA, NEW HAMPSHIRE

## AIRPORT DIAGRAM

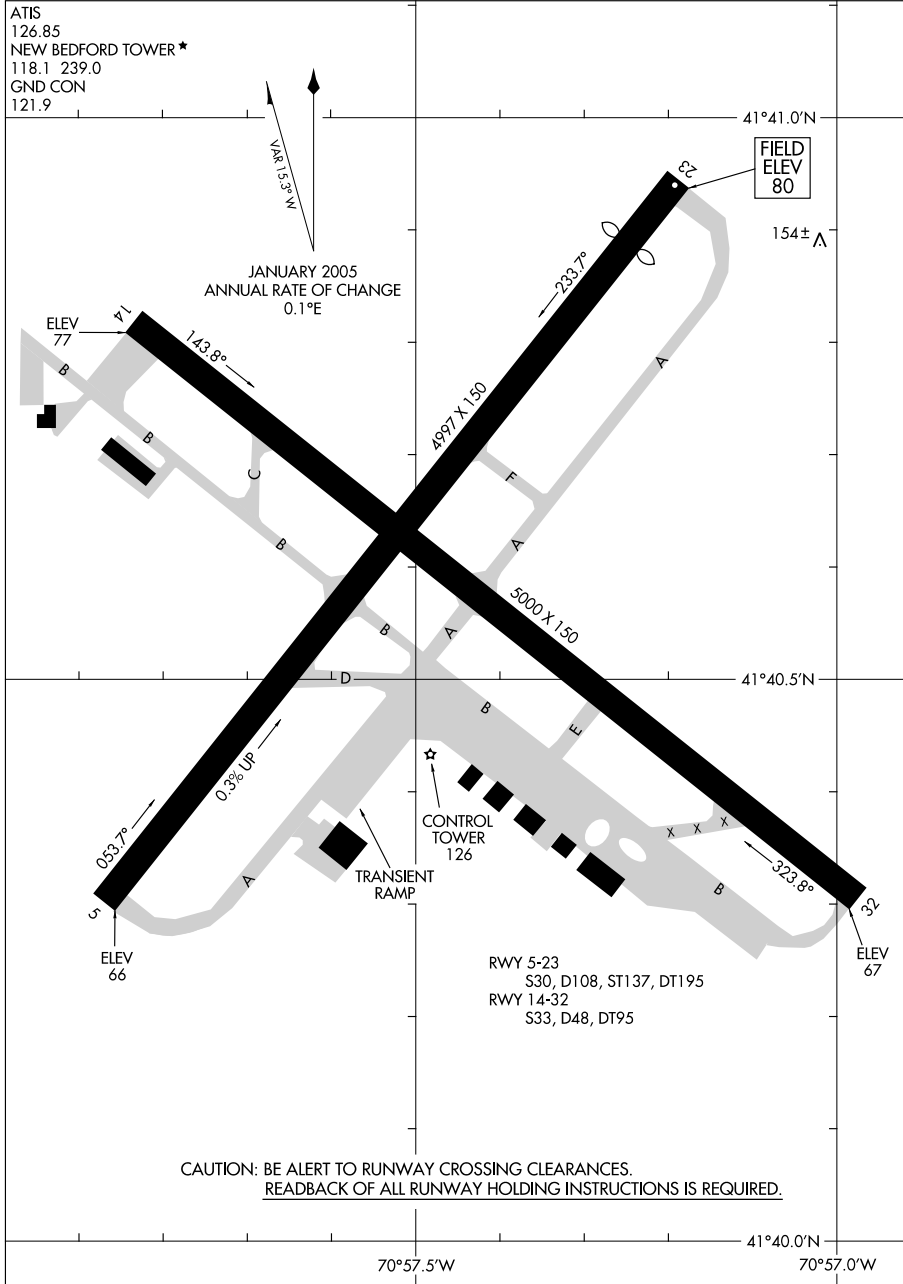
09239

NASHUA, NEW HAMPSHIRE  
NASHUA / BOIRE FIELD (ASH)

09015

## AIRPORT DIAGRAM

AL-644 (FAA)

NEW BEDFORD RGNL (EWB)  
NEW BEDFORD, MASSACHUSETTS

## AIRPORT DIAGRAM

09015

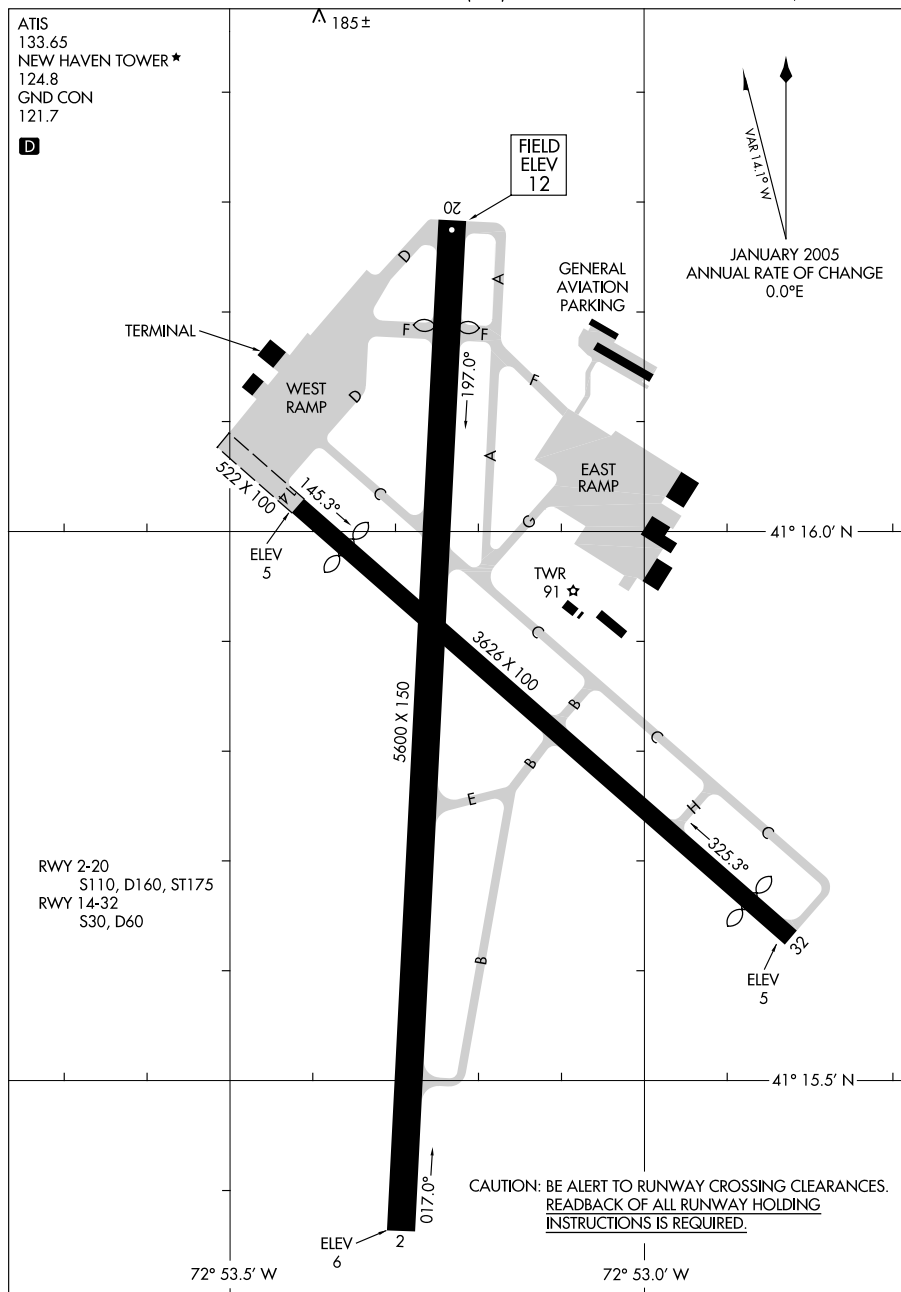
NEW BEDFORD, MASSACHUSETTS  
NEW BEDFORD RGNL (EWB)



09183

## AIRPORT DIAGRAM

AL-671 (FAA)

NEW HAVEN/TWEED-NEW HAVEN (HVN)  
NEW HAVEN, CONNECTICUT

## AIRPORT DIAGRAM

09183

NEW HAVEN, CONNECTICUT  
NEW HAVEN/TWEED-NEW HAVEN (HVN)

NEW YORK / JOHN F. KENNEDY INTL (JFK)  
NEW YORK, NEW YORK

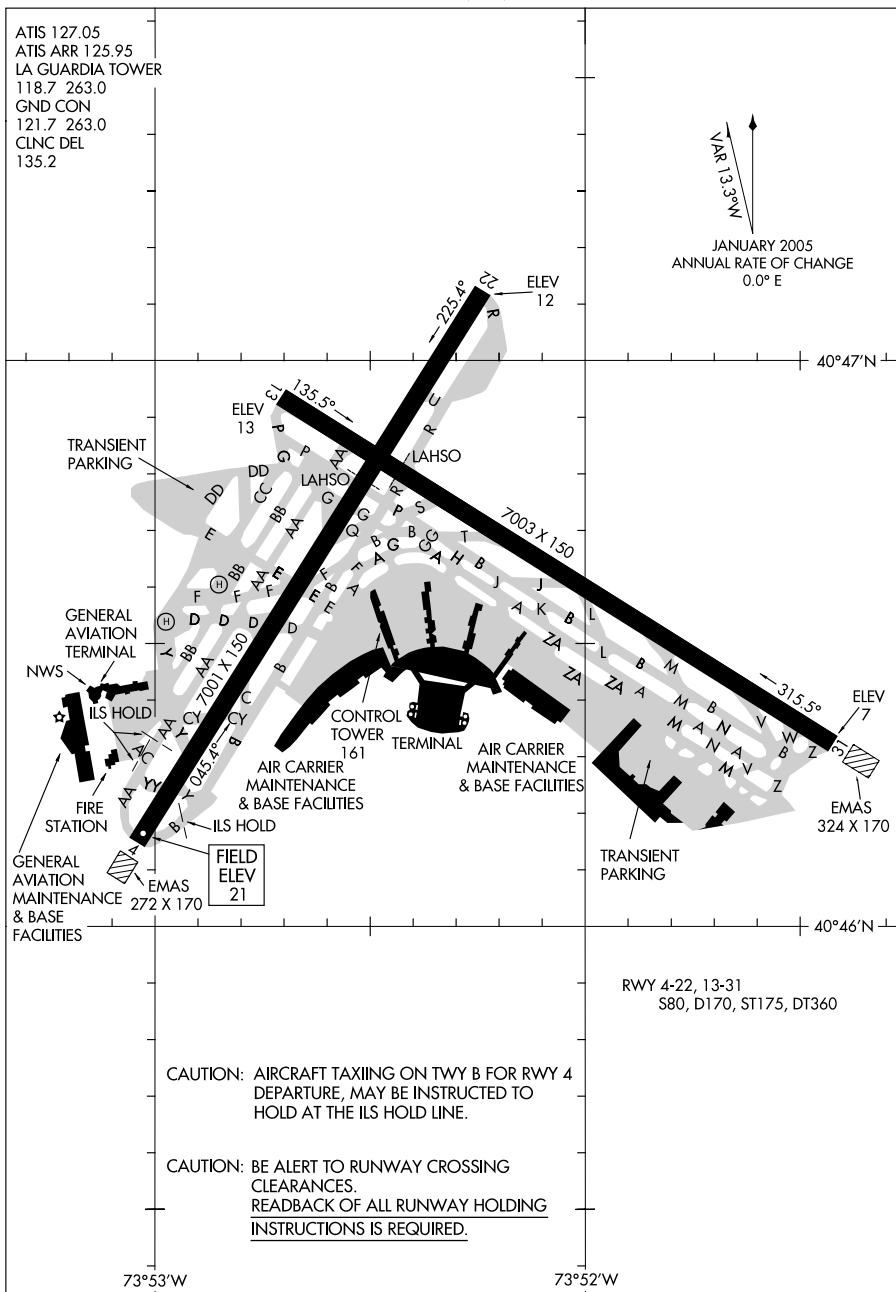


NE, 22 OCT 2009 to 17 DEC 2009

09071

## AIRPORT DIAGRAM

AL-289 (FAA)

NEW YORK/LA GUARDIA (LGA)  
NEW YORK, NEW YORK

## AIRPORT DIAGRAM

09071

NEW YORK, NEW YORK  
NEW YORK/LA GUARDIA (LGA)

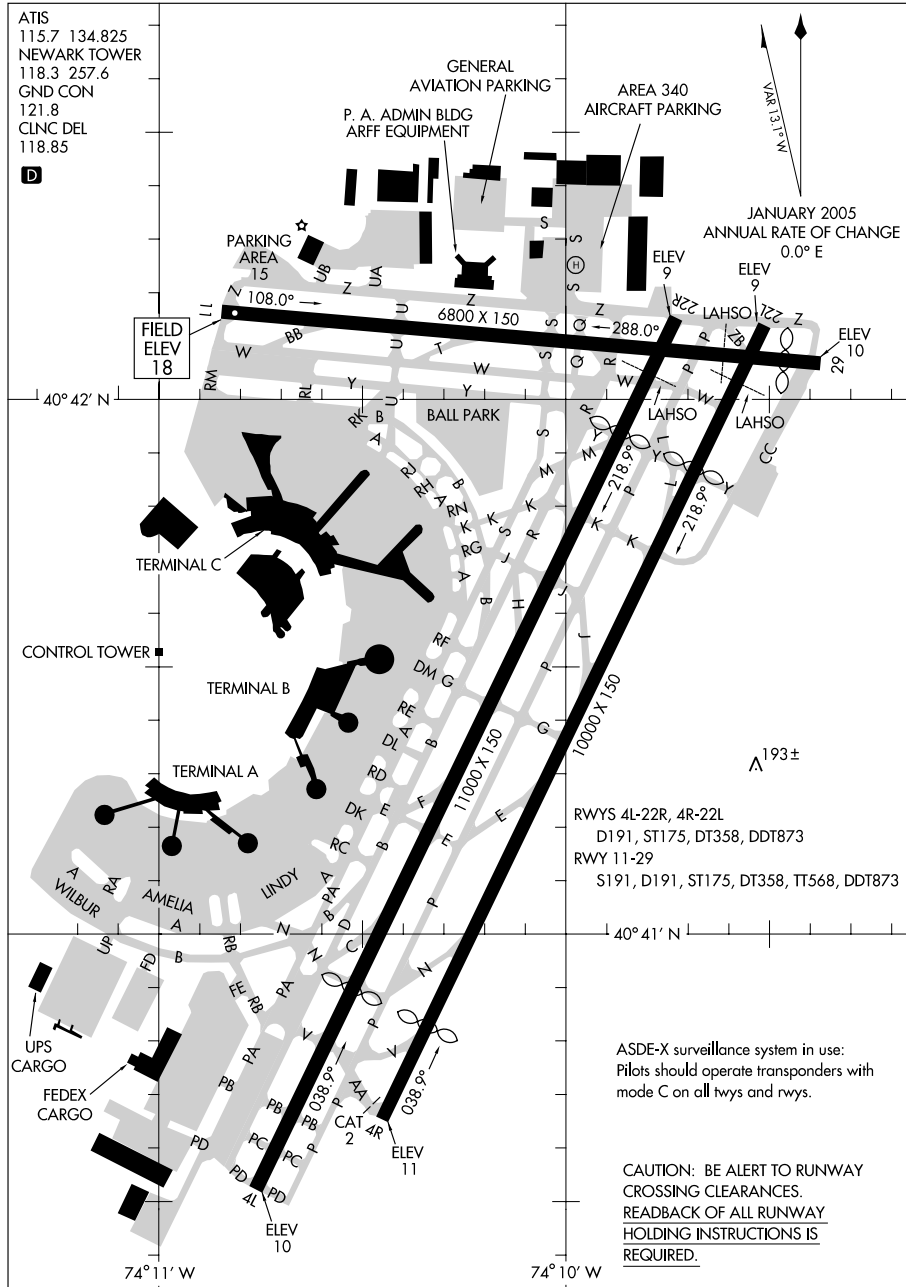
08325

## AIRPORT DIAGRAM

AL-285 (FAA)

NEWARK LIBERTY INTL (EWR)

NEWARK, NEW JERSEY



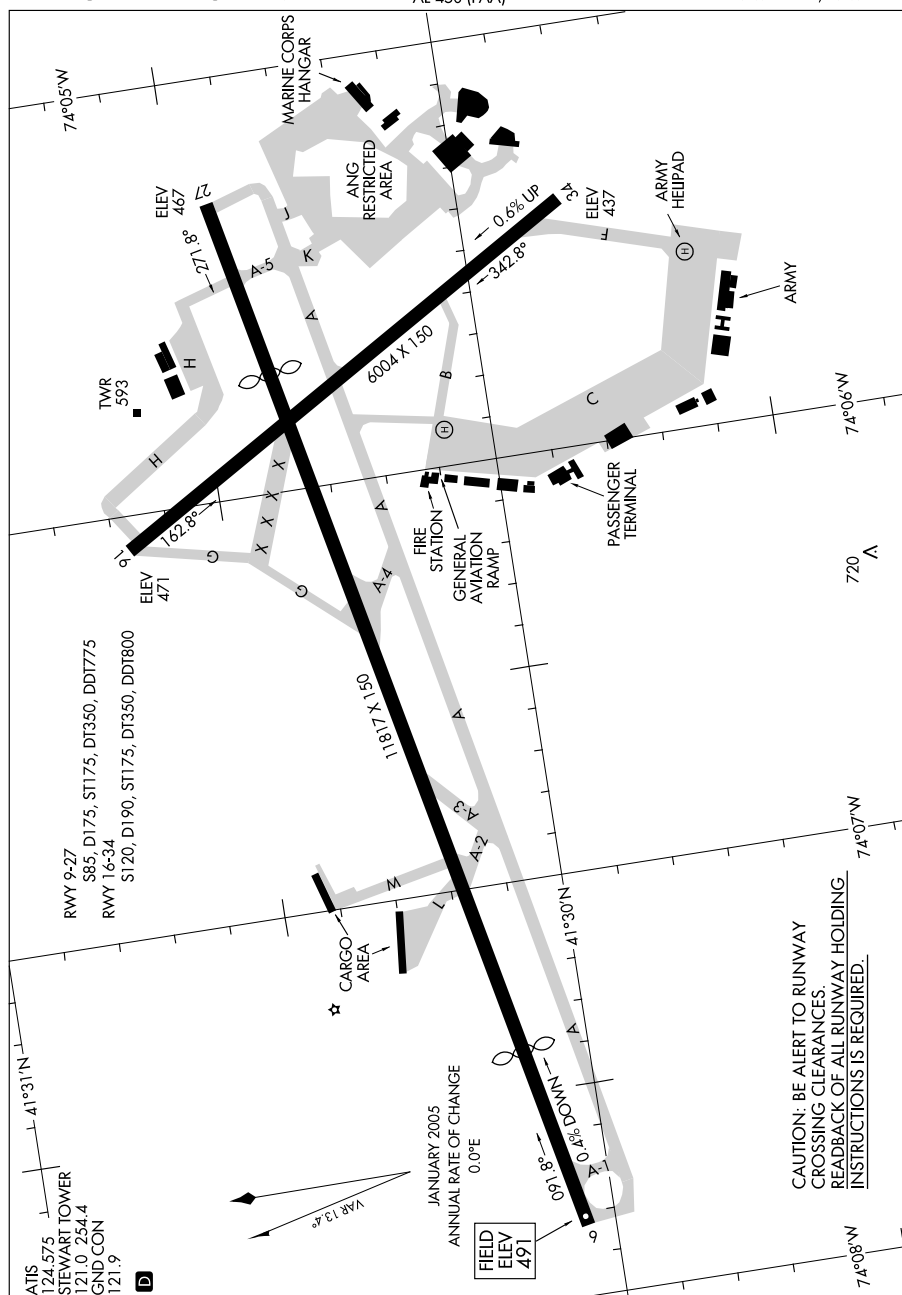
## AIRPORT DIAGRAM

08325

 NEWARK, NEW JERSEY  
 NEWARK LIBERTY INTL (EWR)

09015

## AIRPORT DIAGRAM

NEWBURGH/STEWART INTL (SWF)  
NEWBURGH, NEW YORK

## AIRPORT DIAGRAM

09015

NEWBURGH, NEW YORK  
NEWBURGH/STEWART INTL (SWF)



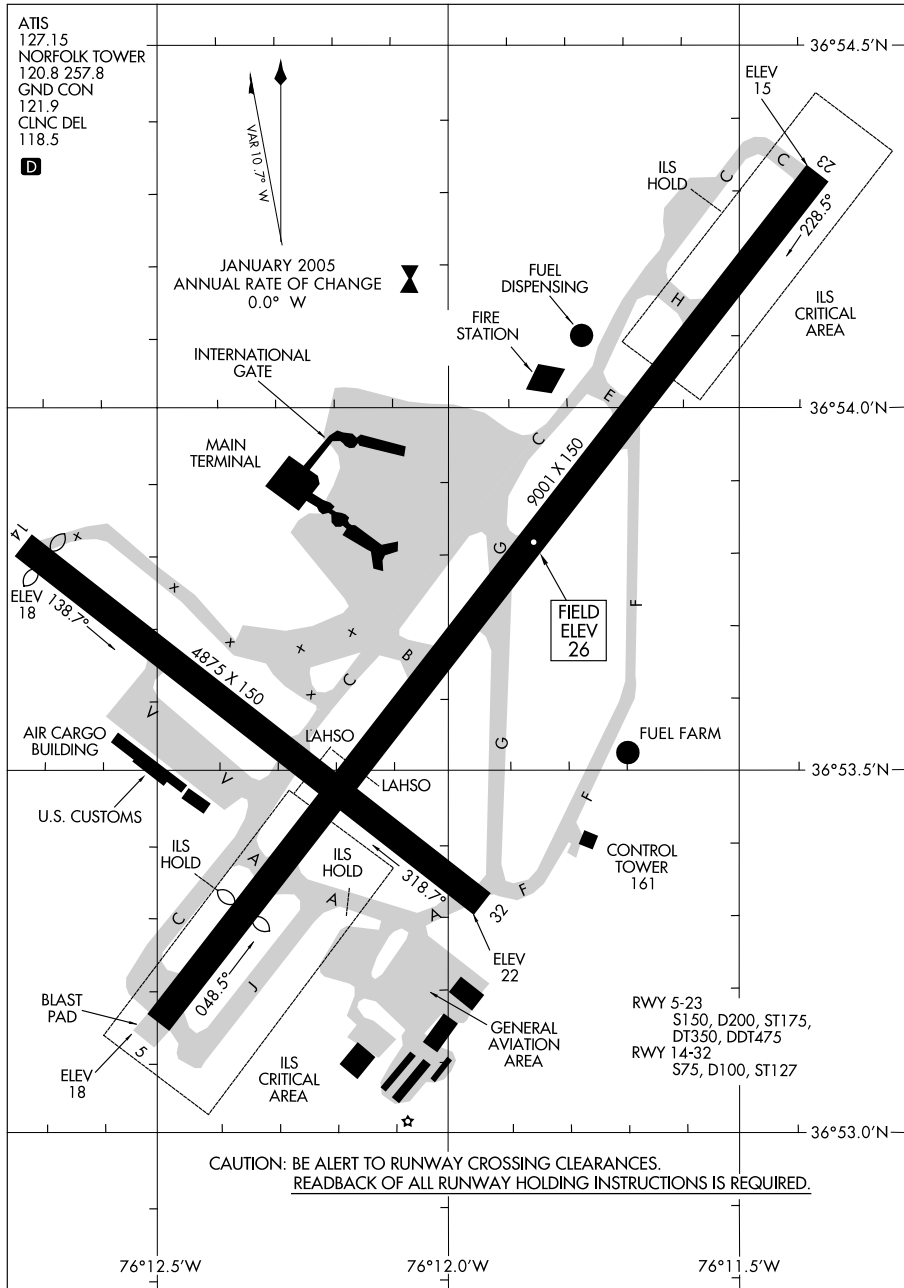


09015

# AIRPORT DIAGRAM

AL-291 (FAA)

NORFOLK INTL (ORF)  
NORFOLK, VIRGINIA



# AIRPORT DIAGRAM

09015

NORFOLK, VIRGINIA  
NORFOLK INTL (ORF)



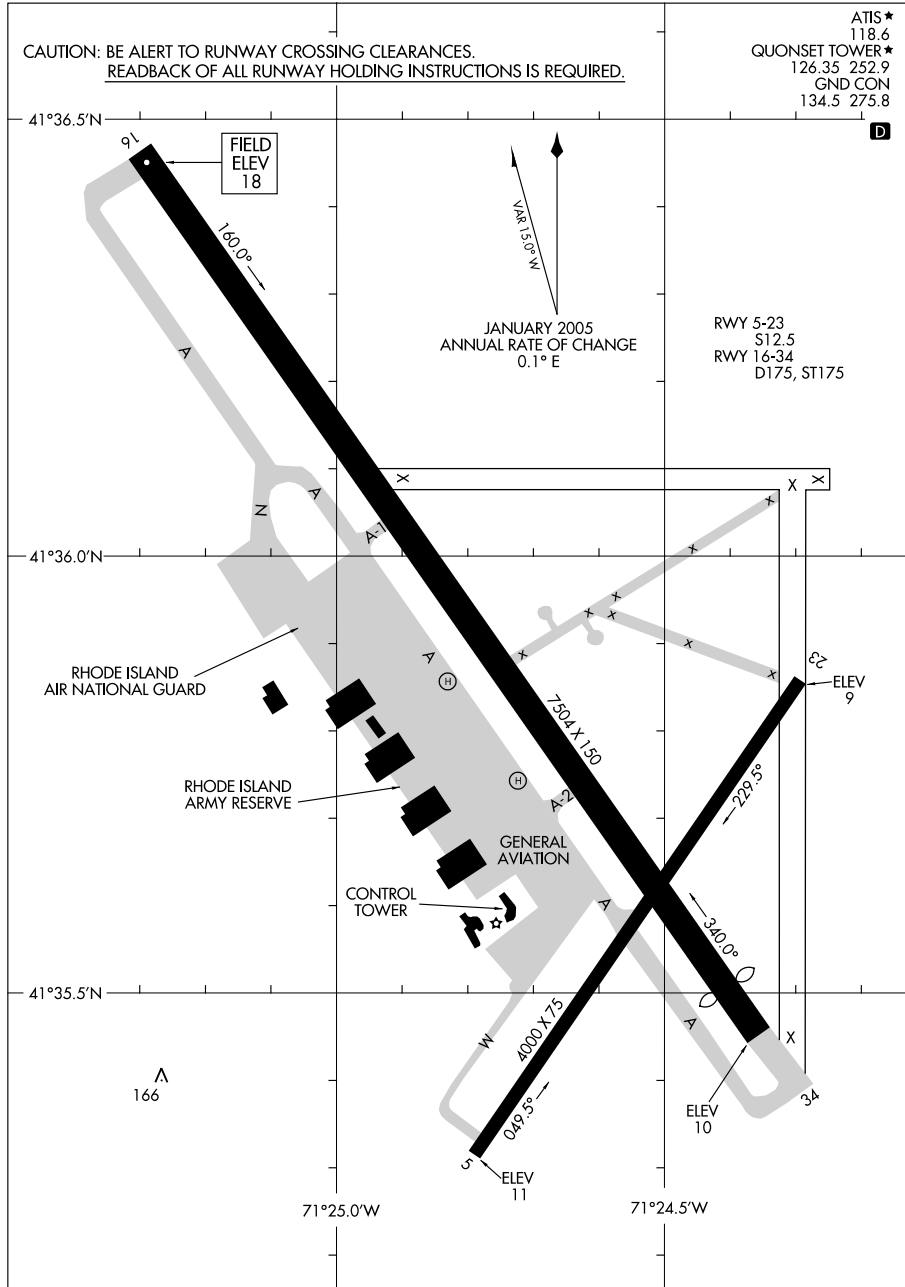


09015

# AIRPORT DIAGRAM

AL-338 (FAA)

NORTH KINGSTOWN/QUONSET STATE (OQU)  
NORTH KINGSTOWN, RHODE ISLAND



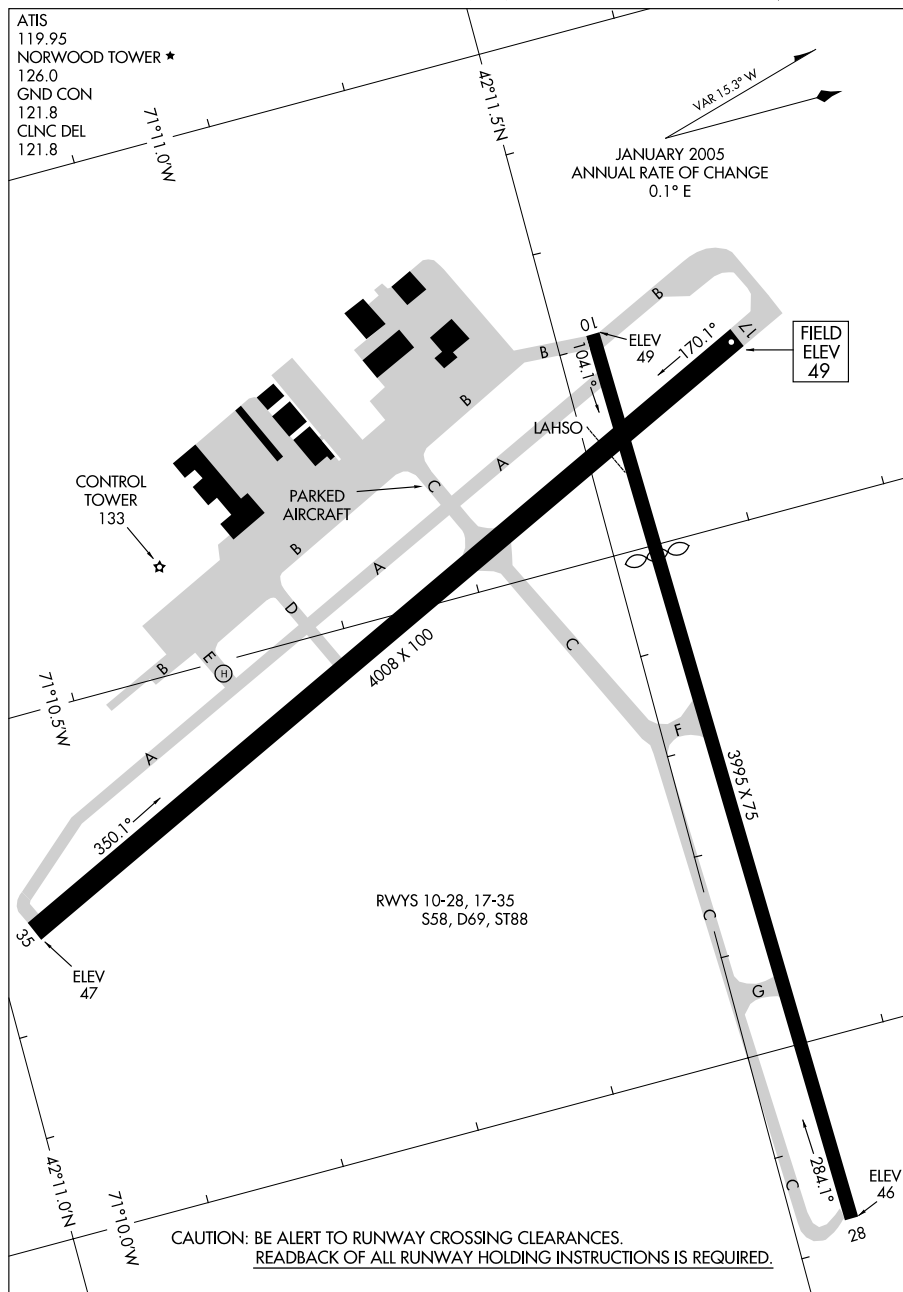
# AIRPORT DIAGRAM

09015

NORTH KINGSTOWN, RHODE ISLAND  
NORTH KINGSTOWN/QUONSET STATE (OQU)

09015

## AIRPORT DIAGRAM

NORWOOD MEMORIAL (OWD)  
NORWOOD, MASSACHUSETTS

## AIRPORT DIAGRAM

09015

NORWOOD, MASSACHUSETTS  
NORWOOD MEMORIAL (OWD)

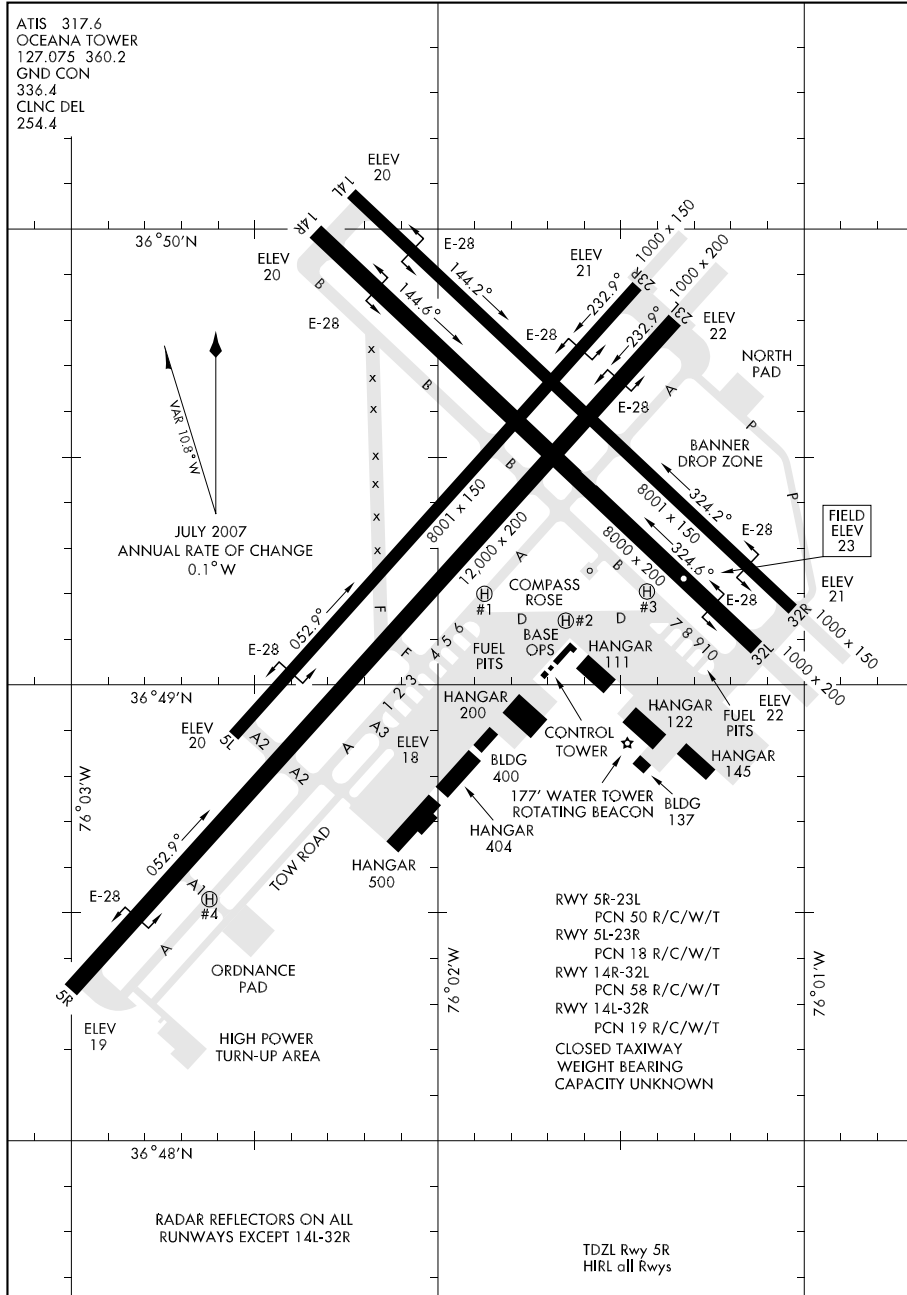
08325

OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

## AIRPORT DIAGRAM

AFD-934 [USN]

VIRGINIA BEACH, VIRGINIA



## AIRPORT DIAGRAM

WGS DATUM

VIRGINIA BEACH, VIRGINIA

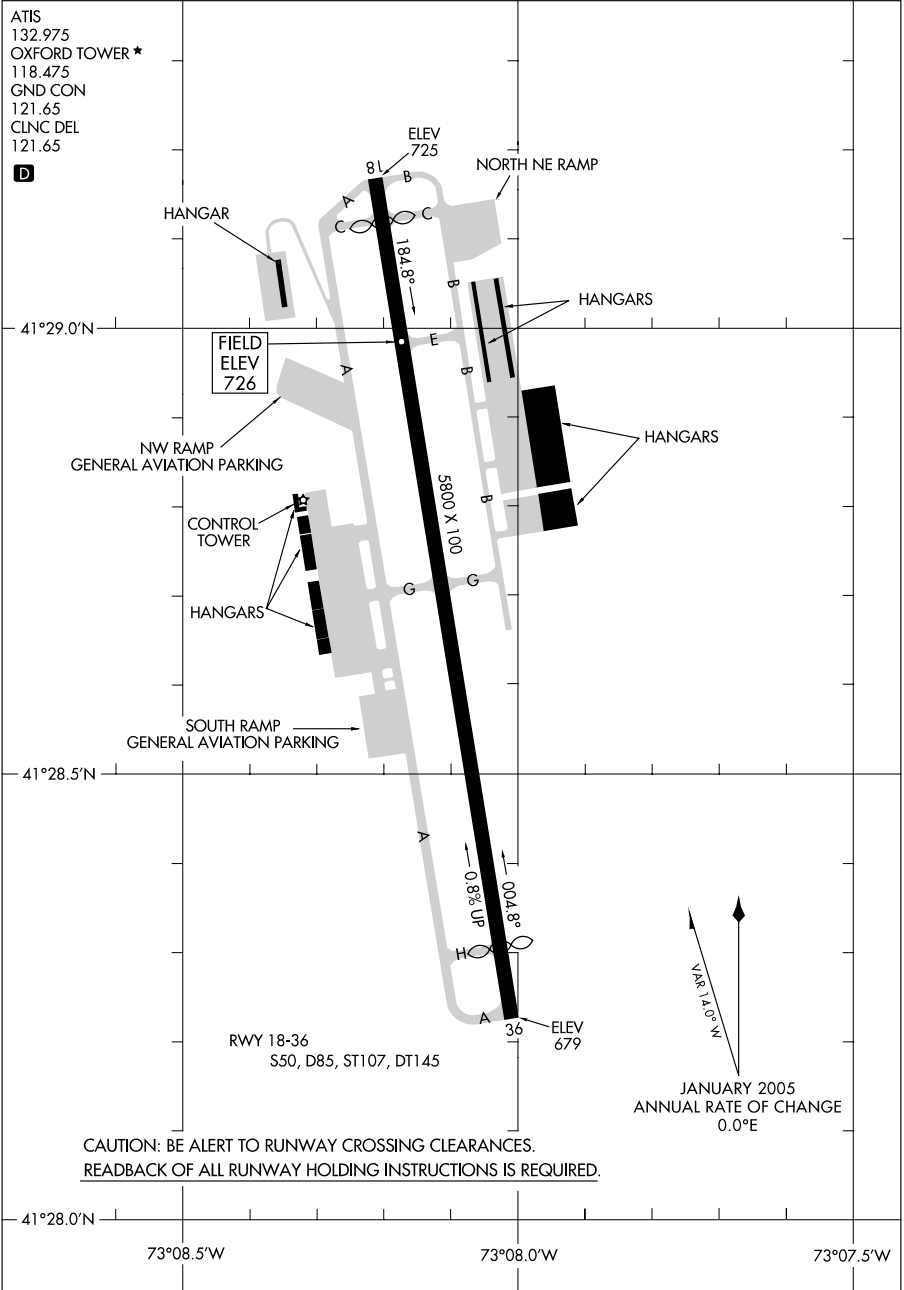
OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

09015

AIRPORT DIAGRAM

AL-5785 (FAA)

OXFORD/ WATERBURY-OXFORD (OXC)  
OXFORD, CONNECTICUT



AIRPORT DIAGRAM

09015

OXFORD, CONNECTICUT  
OXFORD/ WATERBURY-OXFORD (OXC)

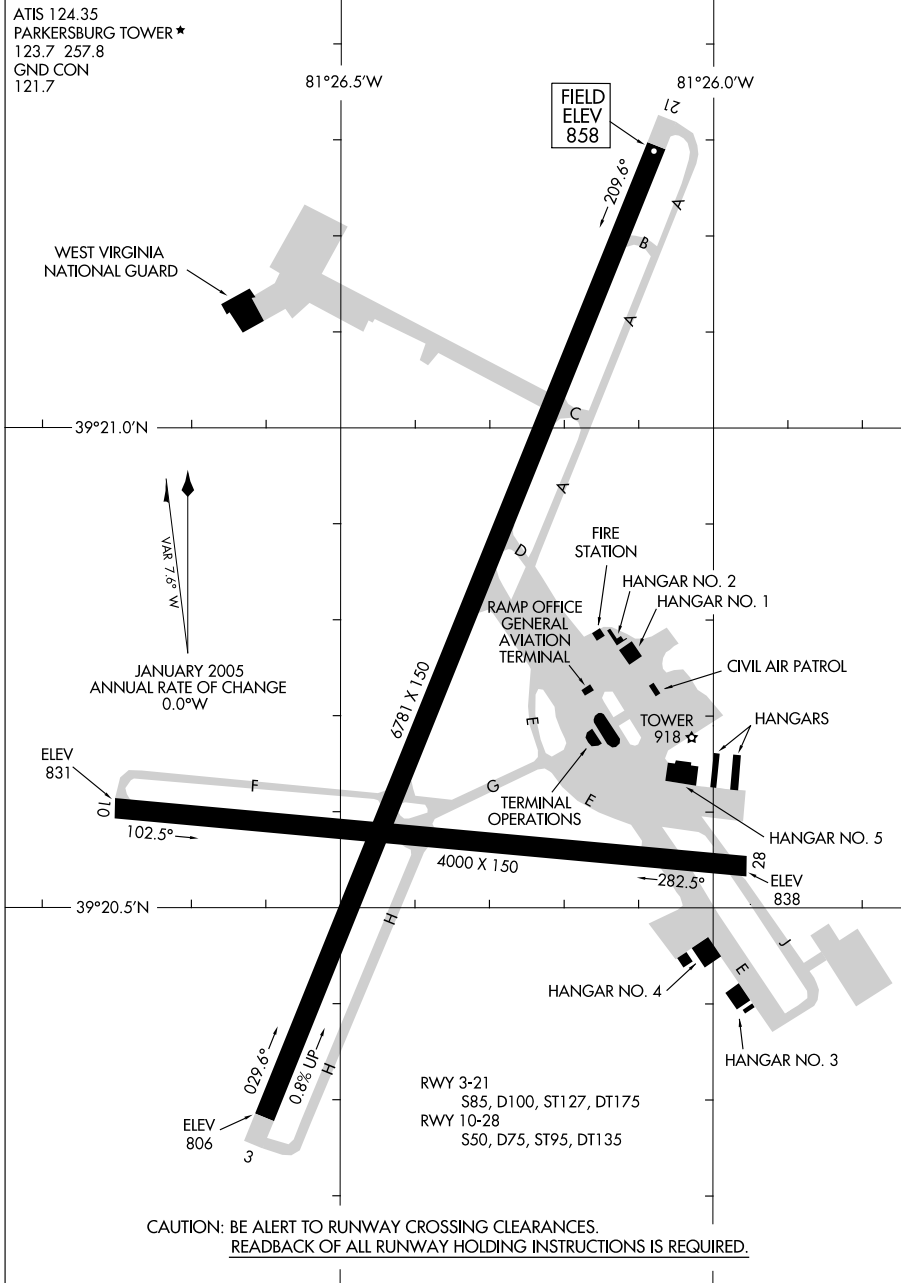
08325

## AIRPORT DIAGRAM

PARKERSBURG/MID-OHIO VALLEY RGNL (PKB)

AL-646 (FAA)

PARKERSBURG, WEST VIRGINIA



## AIRPORT DIAGRAM

08325

PARKERSBURG, WEST VIRGINIA

PARKERSBURG/MID-OHIO VALLEY RGNL (PKB)

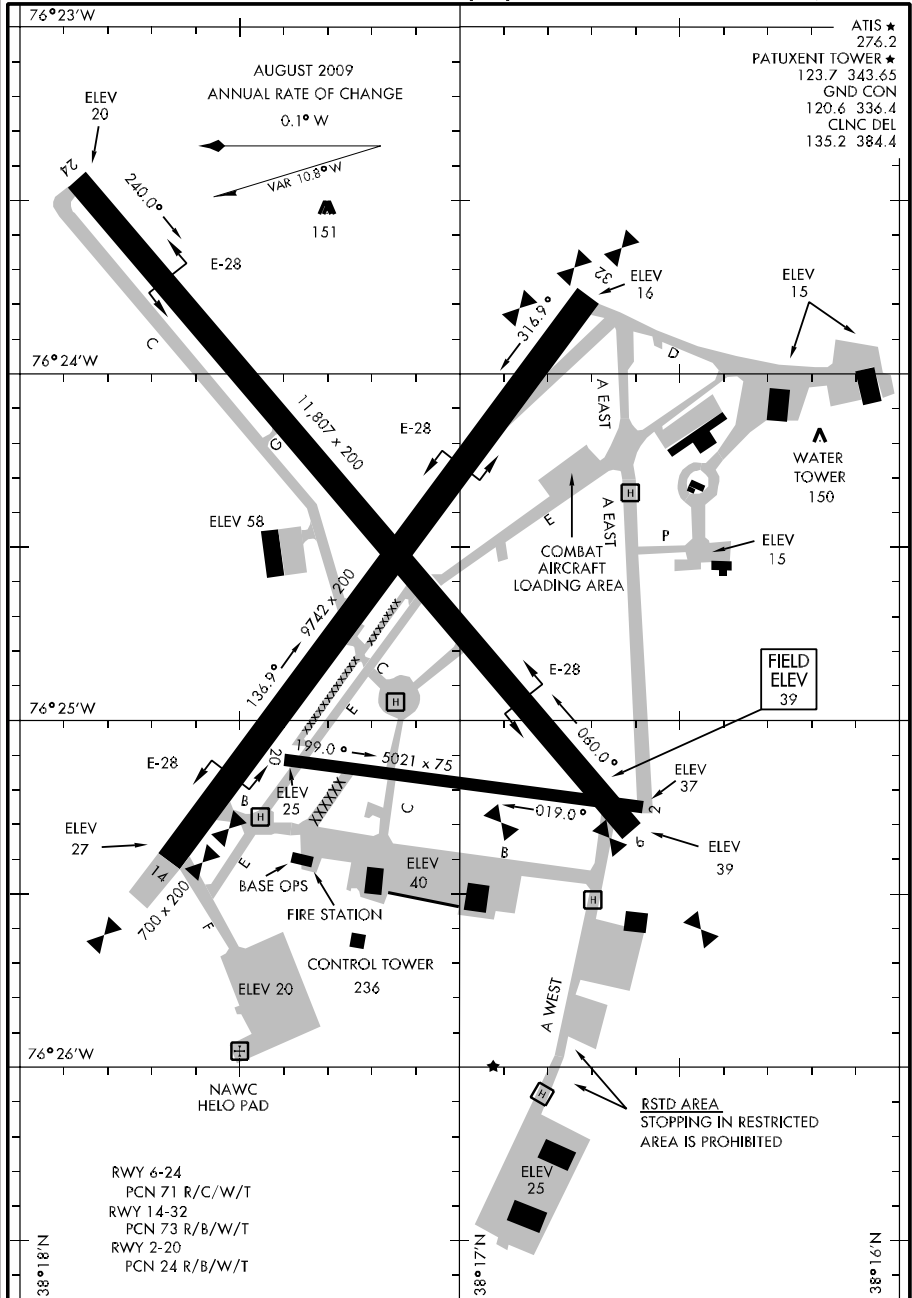
09267

## AIRPORT DIAGRAM

PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHK)

AFD-314 [USN]

PATUXENT RIVER, MARYLAND



## AIRPORT DIAGRAM

PATUXENT RIVER, MARYLAND  
PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHK)

NE, 22 OCT 2009 to 17 DEC 2009

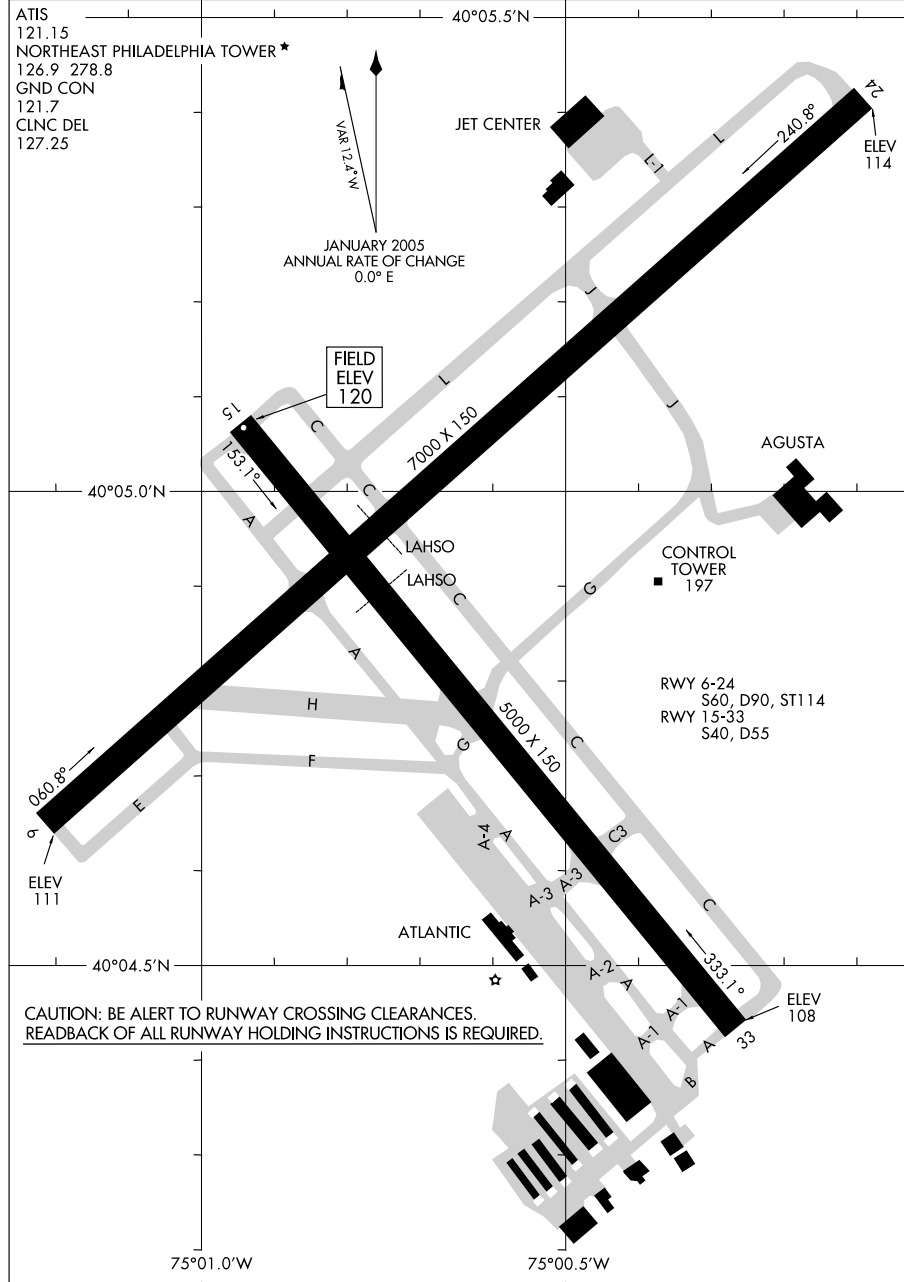
09295

## AIRPORT DIAGRAM

PHILADELPHIA / NORTHEAST PHILADELPHIA (PNE)

AL-528 (FAA)

PHILADELPHIA, PENNSYLVANIA



## AIRPORT DIAGRAM

09295

PHILADELPHIA, PENNSYLVANIA

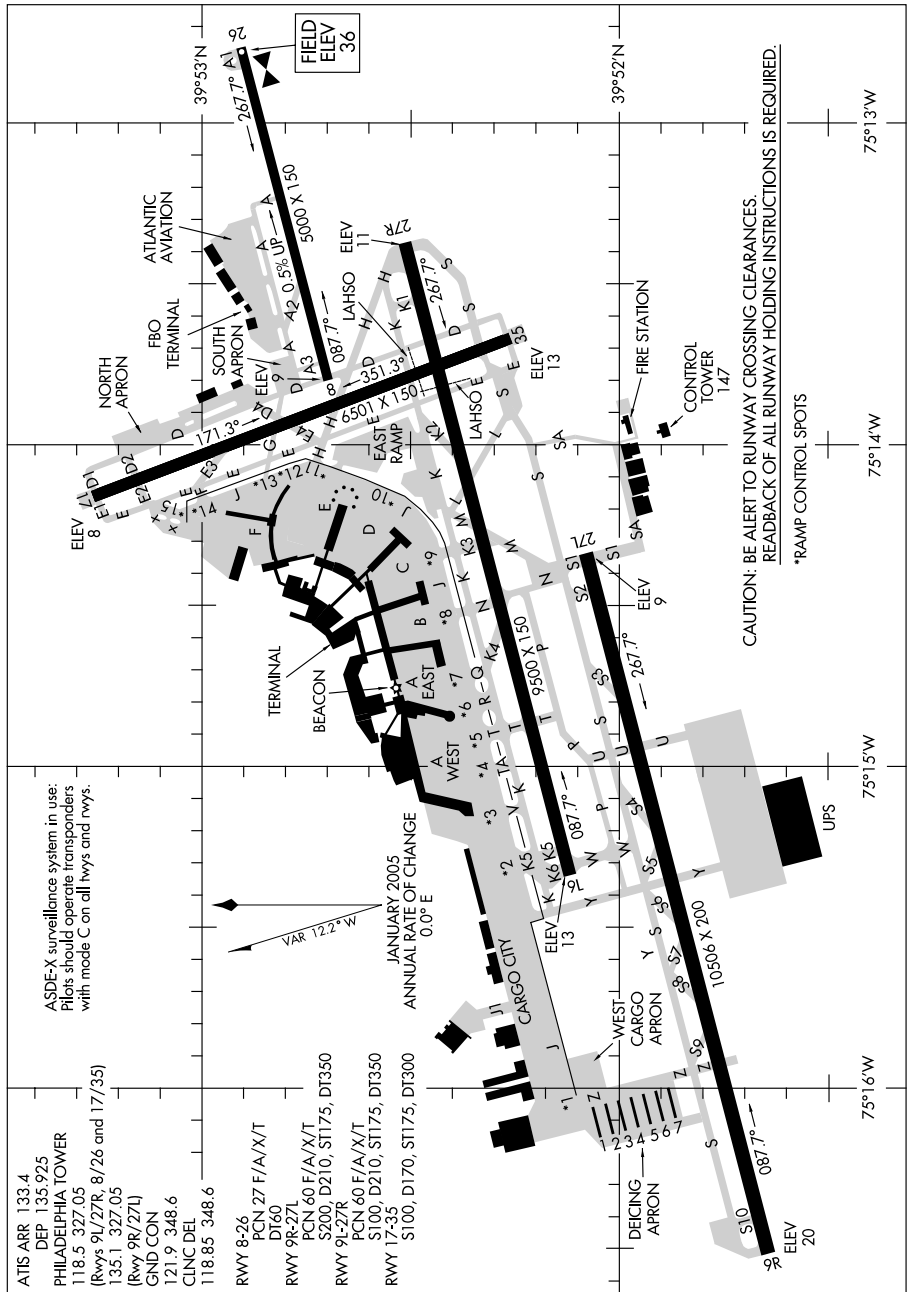
PHILADELPHIA / NORTHEAST PHILADELPHIA (PNE)



09295

## AIRPORT DIAGRAM

AL-320 (FAA)

PHILADELPHIA INTL (PHL)  
PHILADELPHIA, PENNSYLVANIA

## AIRPORT DIAGRAM

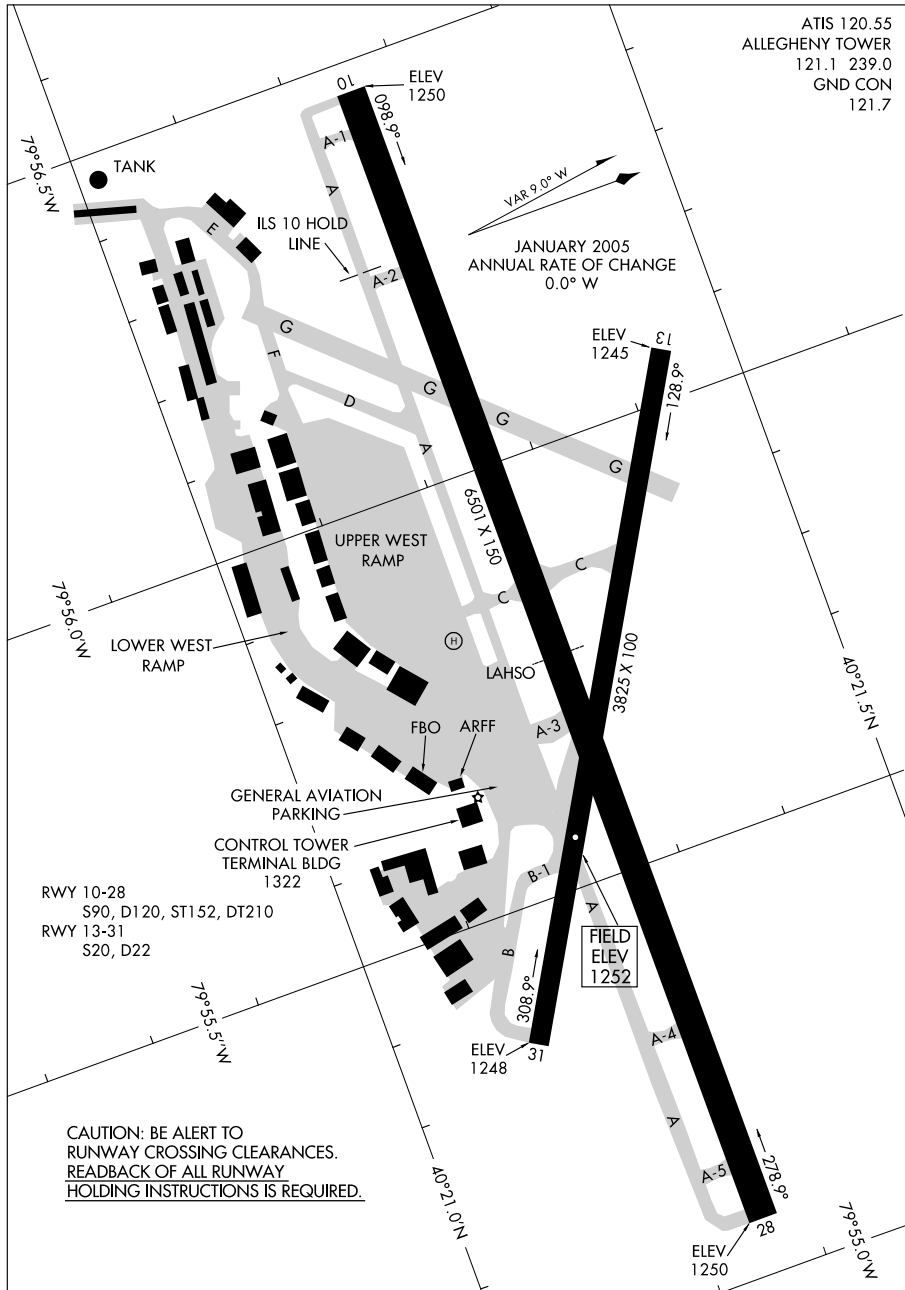
09295

PHILADELPHIA, PENNSYLVANIA  
PHILADELPHIA INTL (PHL)

07242

# AIRPORT DIAGRAM

PITTSBURGH / ALLEGHENY COUNTY (AGC)  
PITTSBURGH, PENNSYLVANIA



# AIRPORT DIAGRAM

07242

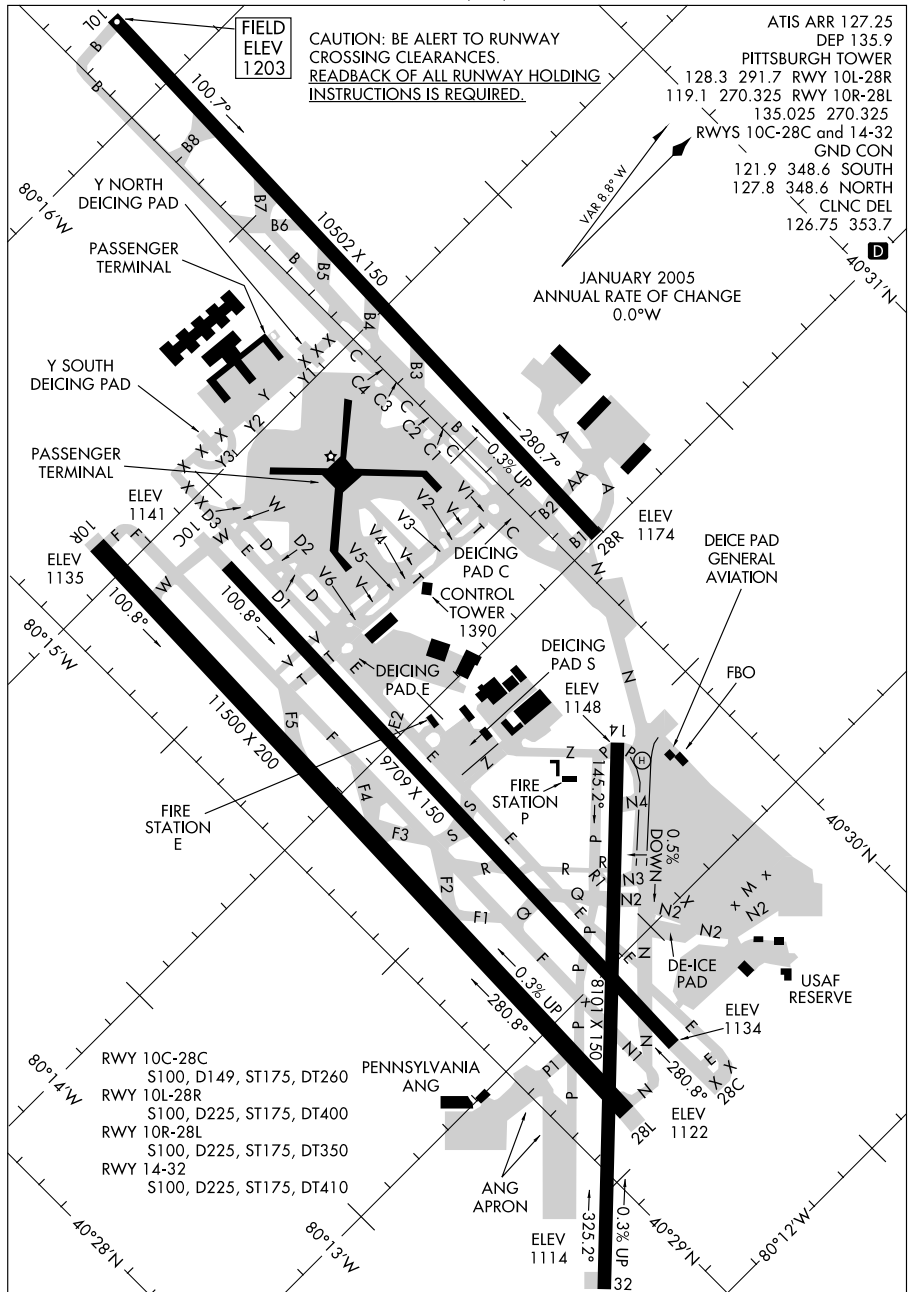
PITTSBURGH, PENNSYLVANIA  
PITTSBURGH / ALLEGHENY COUNTY (AGC)

09183

# AIRPORT DIAGRAM

AL-570 (FAA)

PITTSBURGH INTL (PIT)  
PITTSBURGH, PENNSYLVANIA



ATIS ARR 127.25  
 DEP 135.9  
 PITTSBURGH TOWER  
 117.1 RWY 10L-28R  
 132.5 RWY 10R-28L  
 135.025 270.325  
 10C-28C and 14-32  
 GND CON  
 119.9 348.6 SOUTH  
 117.8 348.6 NORTH  
 \ CLNC DEL  
 126.75 353.7

JANUARY 2005  
ANNUAL RATE OF CHANGE  
0.0°W

## AIRPORT DIAGRAM

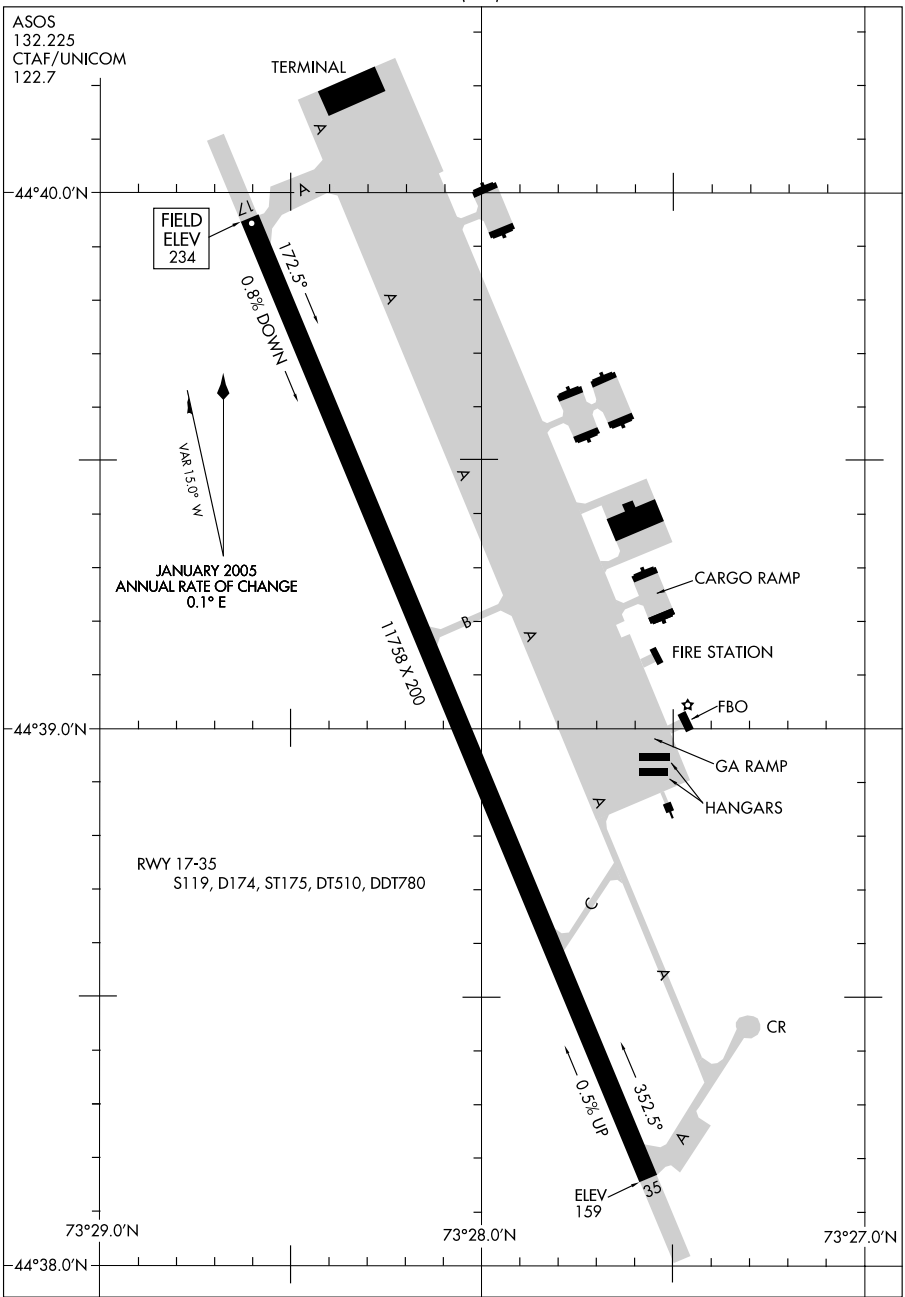
PITTSBURGH, PENNSYLVANIA  
PITTSBURGH INTL (PIT)

09183

NE, 22 OCT 2009 to 17 DEC 2009

09071  
AIRPORT DIAGRAM

PLATTSBURGH INTL (PBG)  
PLATTSBURGH, NEW YORK



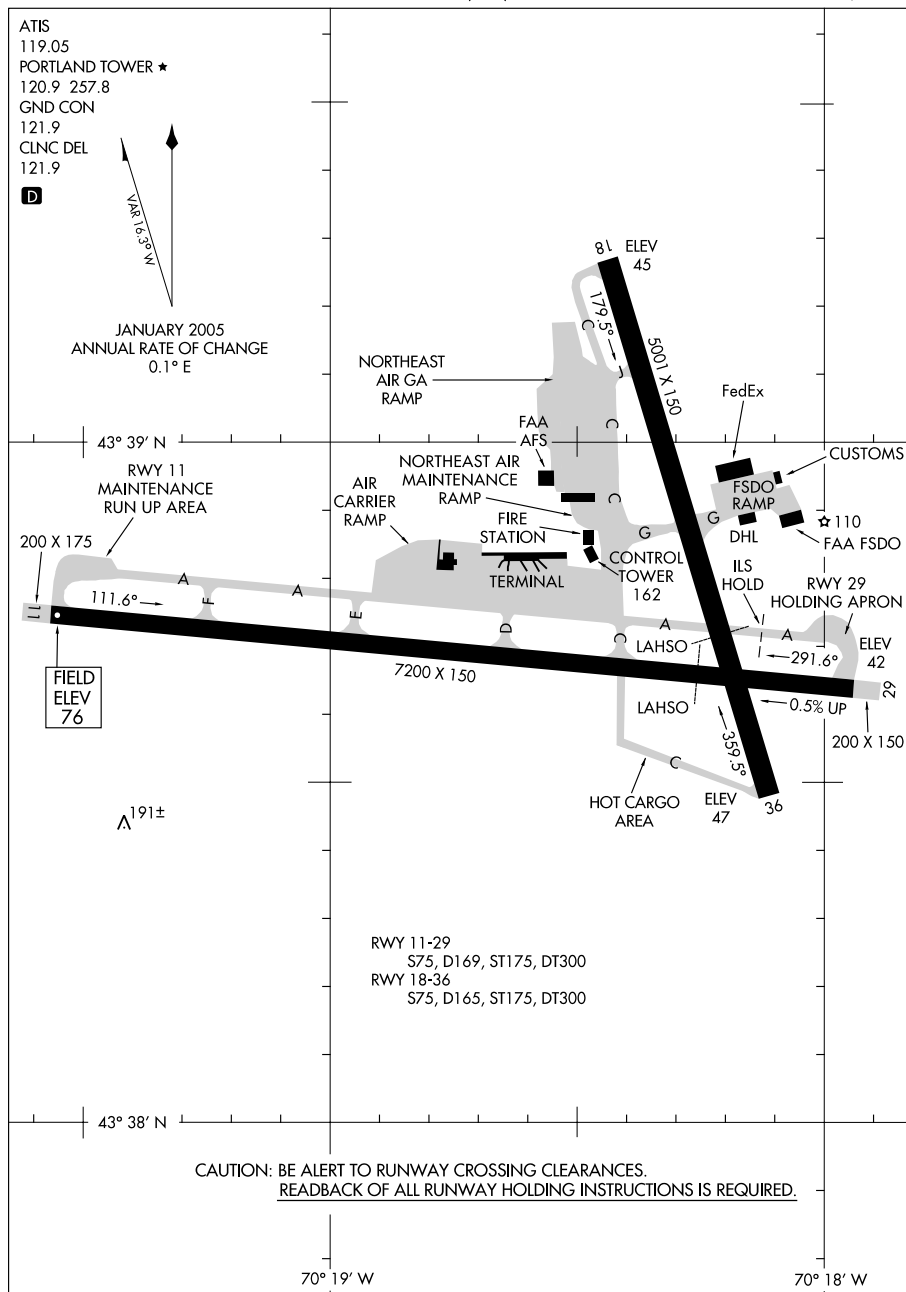
AIRPORT DIAGRAM  
09071

PLATTSBURGH, NEW YORK  
PLATTSBURGH INTL (PBG)

09015

## AIRPORT DIAGRAM

AL-329 (FAA)

PORTLAND INTL JETPORT (PWM)  
PORTLAND, MAINE

## AIRPORT DIAGRAM

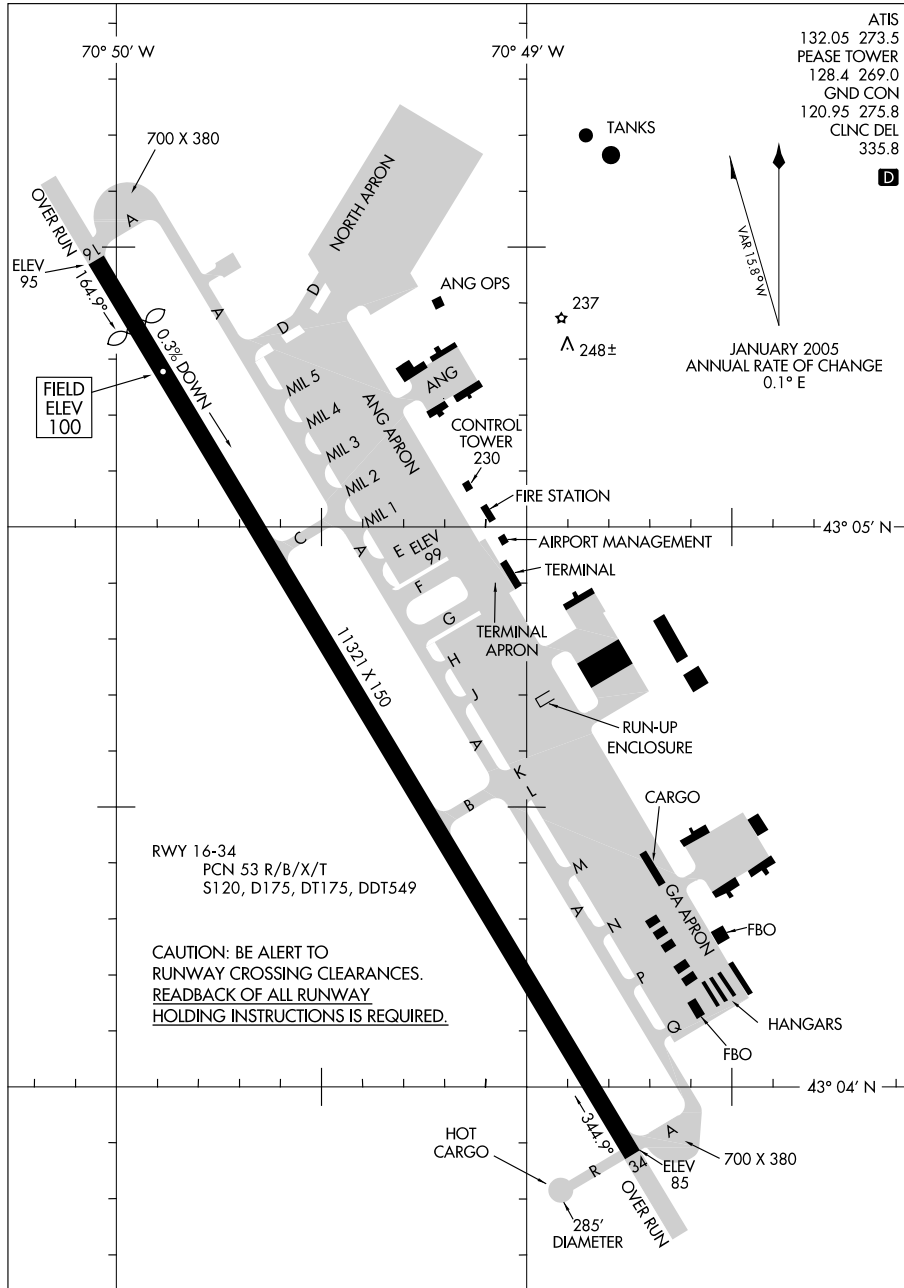
09015

PORTLAND, MAINE  
PORTLAND INTL JETPORT (PWM)

09239

# AIRPORT DIAGRAM

AL-678 (FAA)

PORTSMOUTH INTL AT PEASE (PSM)  
PORTSMOUTH, NEW HAMPSHIRE

## AIRPORT DIAGRAM

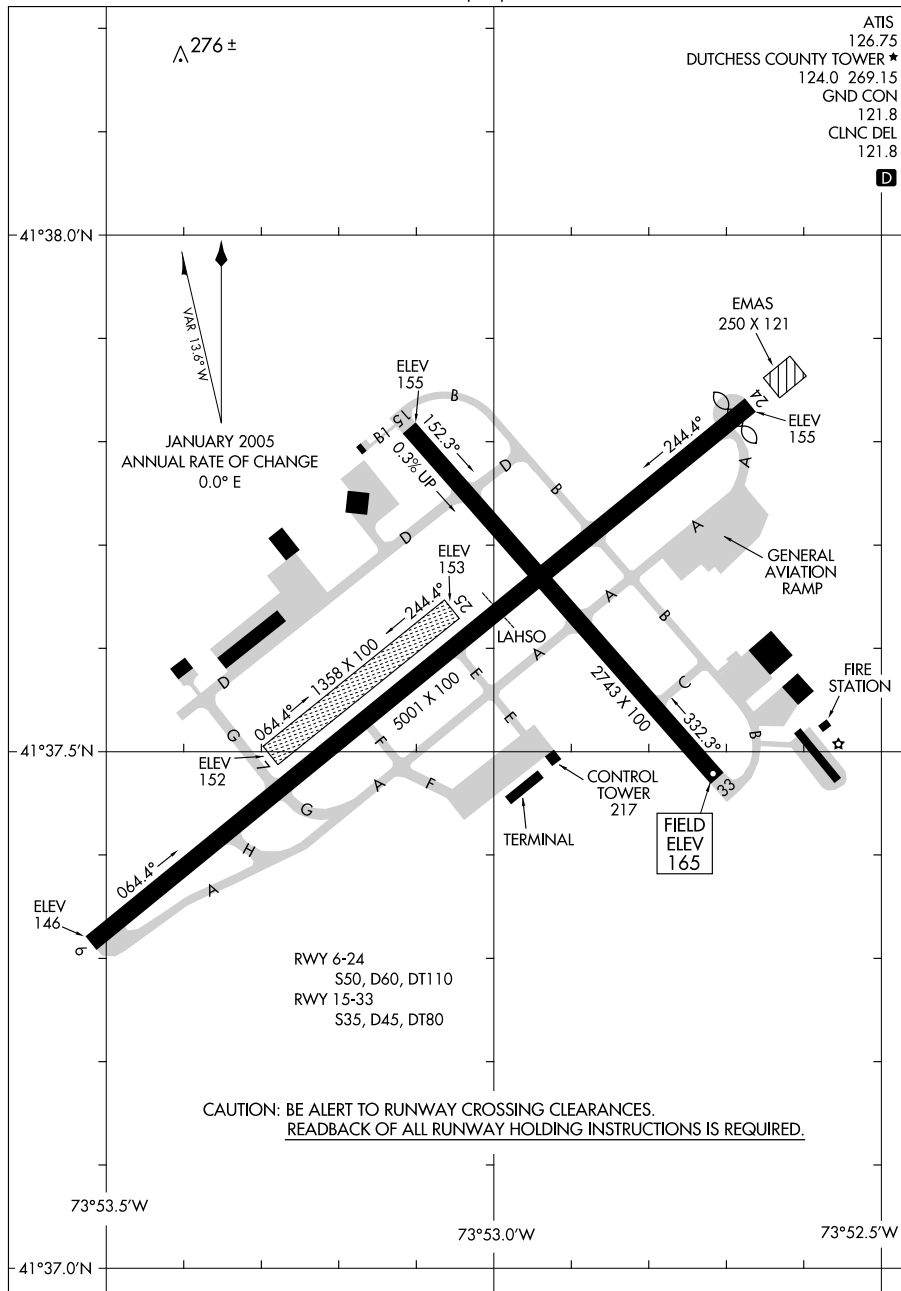
09239

PORTSMOUTH, NEW HAMPSHIRE  
PORTSMOUTH INTL AT PEASE (PSM)

09015

## AIRPORT DIAGRAM

AL-286 (FAA)

POUGHKEEPSIE/DUTCHESS COUNTY (POU)  
POUGHKEEPSIE, NEW YORK

## AIRPORT DIAGRAM

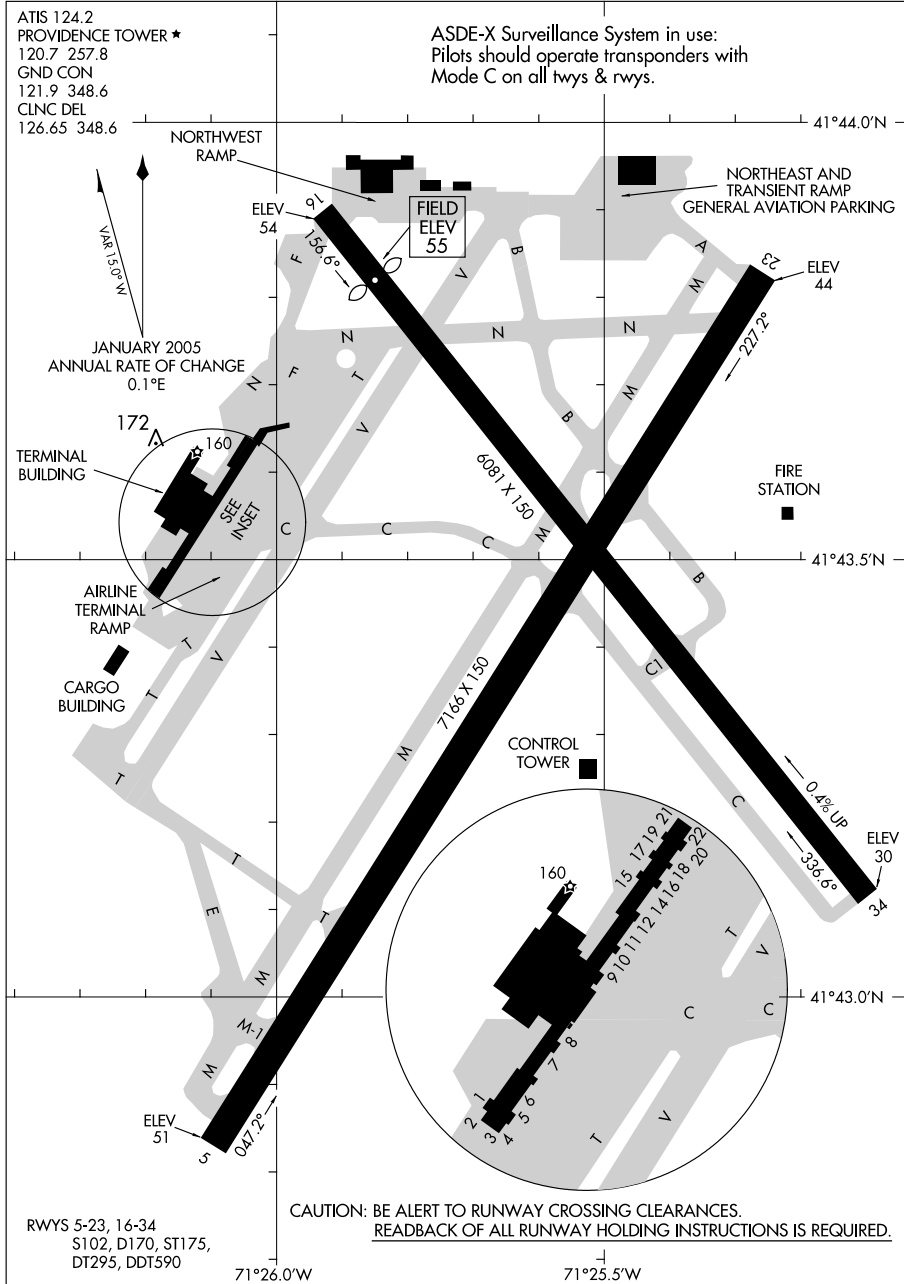
09015

POUGHKEEPSIE, NEW YORK  
POUGHKEEPSIE/DUTCHESS COUNTY (POU)

08325

# AIRPORT DIAGRAM

PROVIDENCE / THEODORE FRANCIS GREEN STATE (PVD)  
AL-333 (FAA) PROVIDENCE, RHODE ISLAND



# AIRPORT DIAGRAM

08325

PROVIDENCE, RHODE ISLAND  
PROVIDENCE / THEODORE FRANCIS GREEN STATE (PVD)



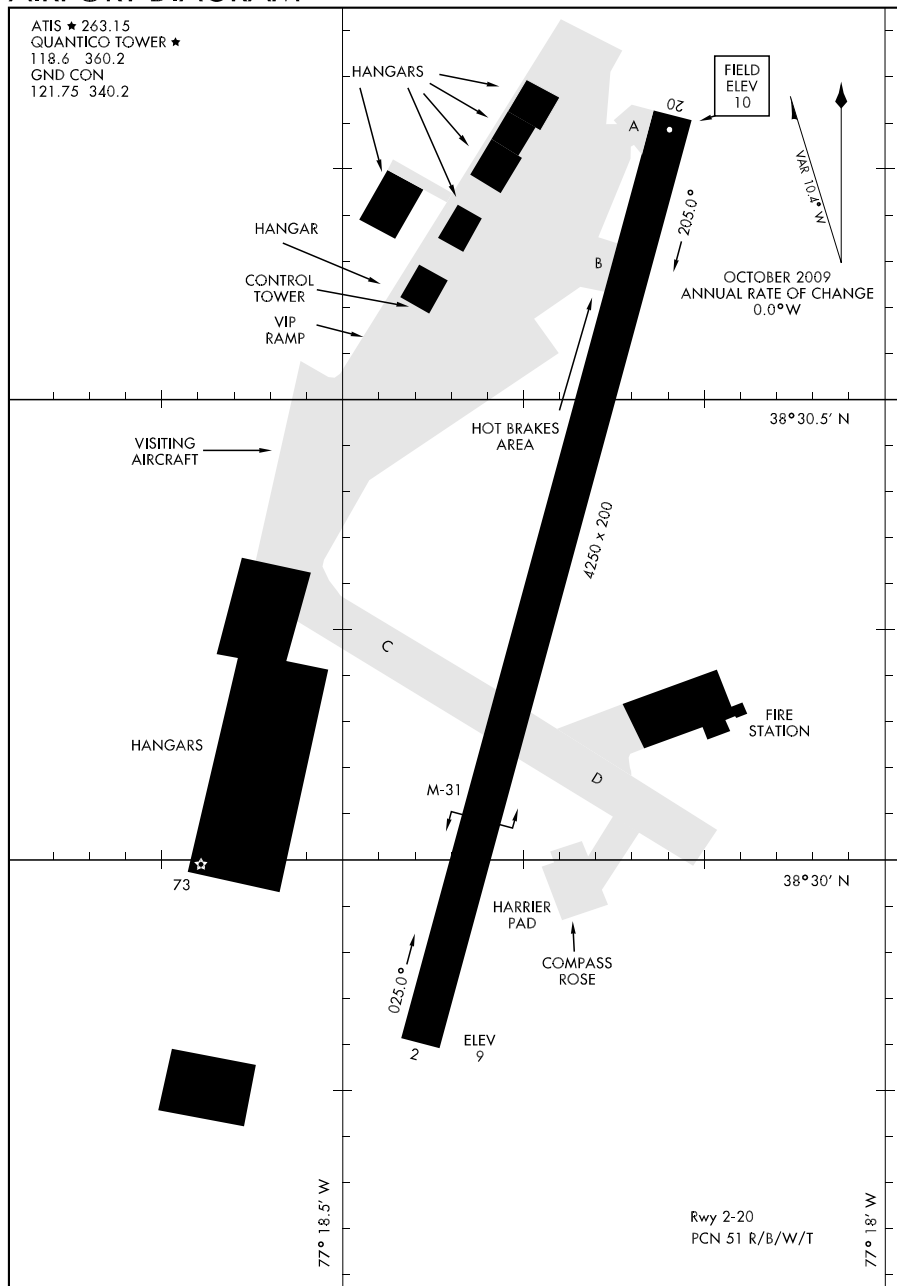
09295

## AIRPORT DIAGRAM

AFD-339 [USN]

QUANTICO MCAF (TURNER FIELD) (KNYG)

QUANTICO, VIRGINIA



## AIRPORT DIAGRAM

QUANTICO, VIRGINIA  
 QUANTICO MCAF (TURNER FIELD) (KNYG)

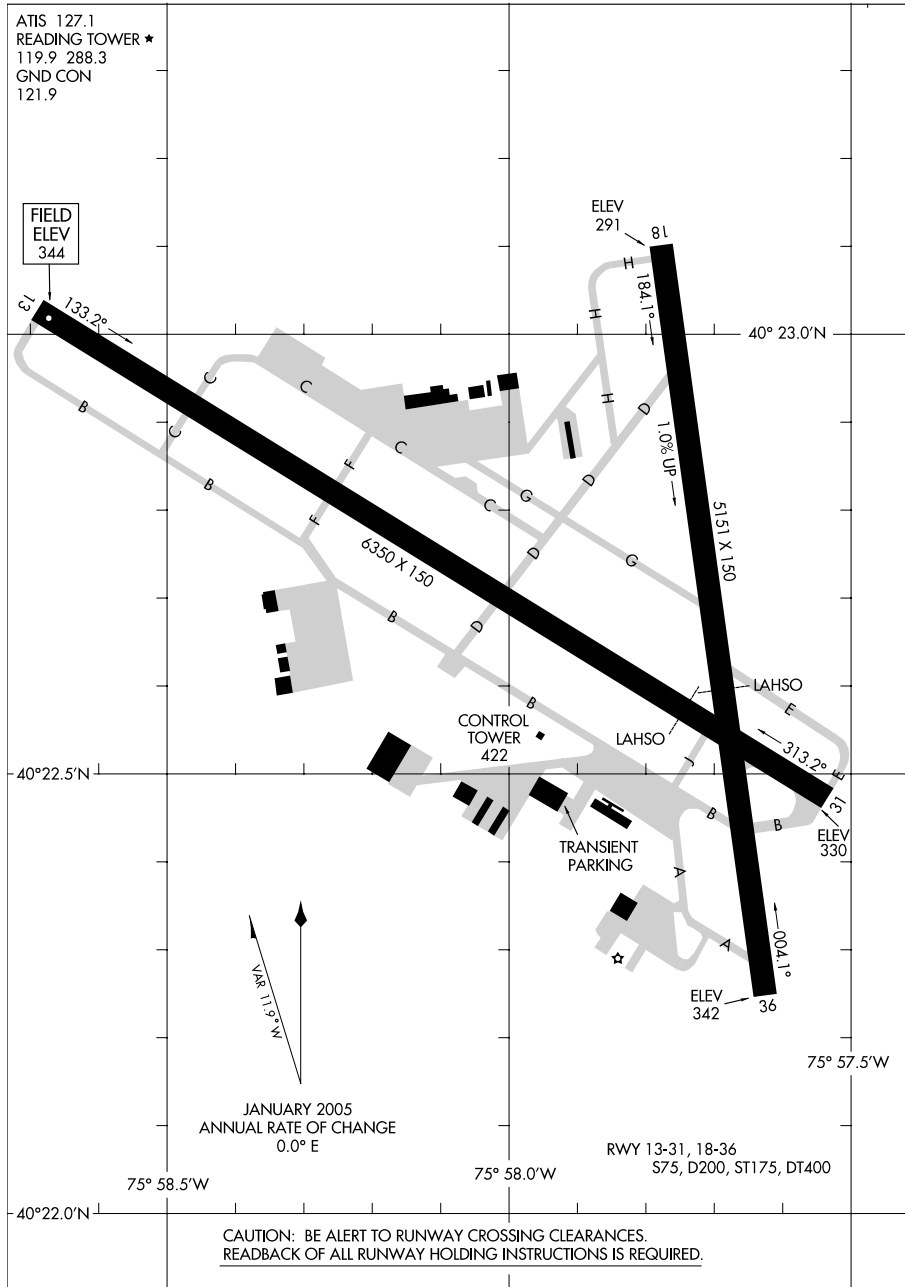
07242

# AIRPORT DIAGRAM

READING RGNL / CARL A SPAATZ FIELD (R.DG)

AL-627 (FAA)

READING, PENNSYLVANIA



# AIRPORT DIAGRAM

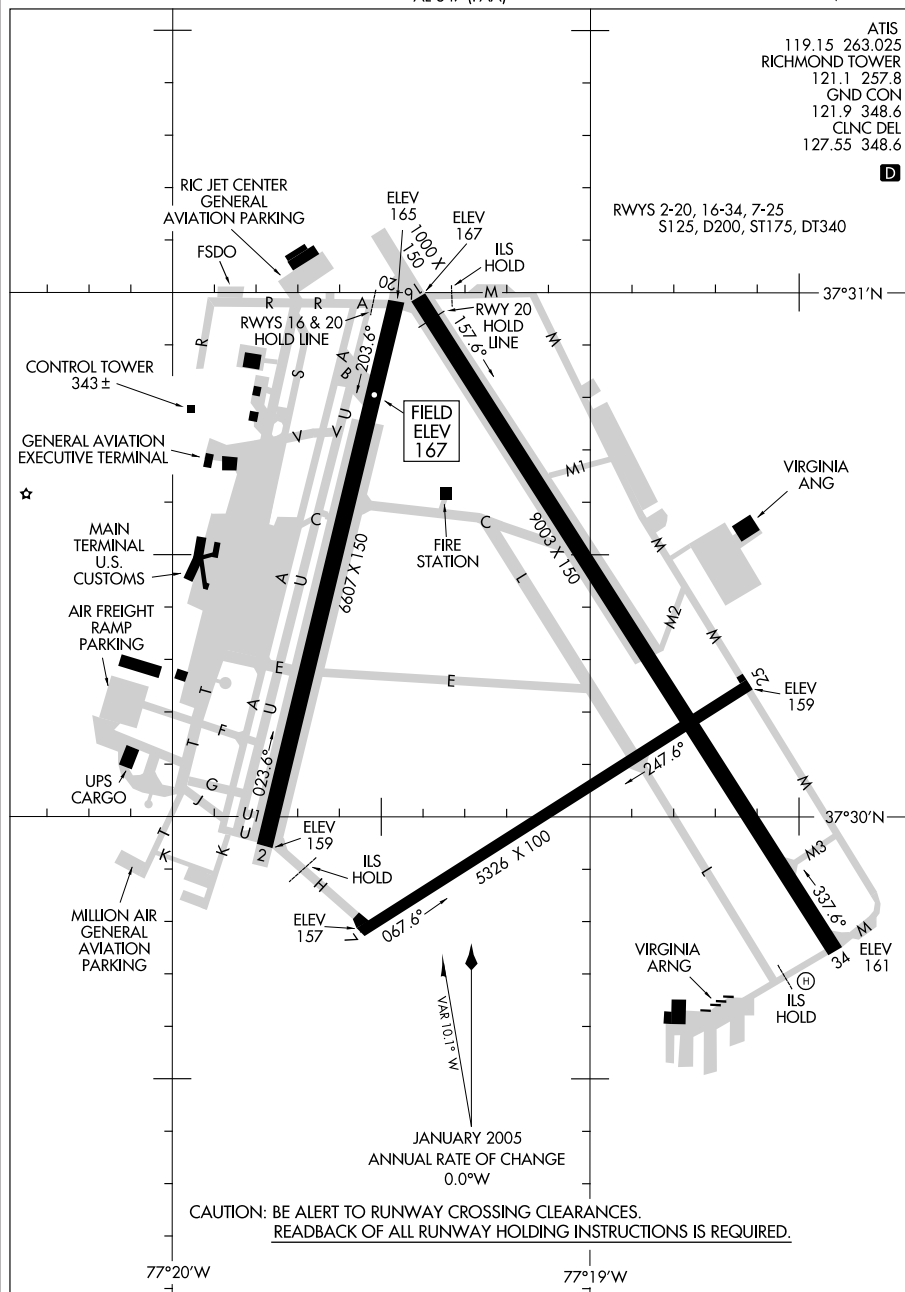
07242

READING, PENNSYLVANIA  
READING RGNL / CARL A SPAATZ FIELD (R.DG)

09295

## AIRPORT DIAGRAM

AL-347 (FAA)

 RICHMOND INTL (RIC)  
 RICHMOND, VIRGINIA


## AIRPORT DIAGRAM

09295

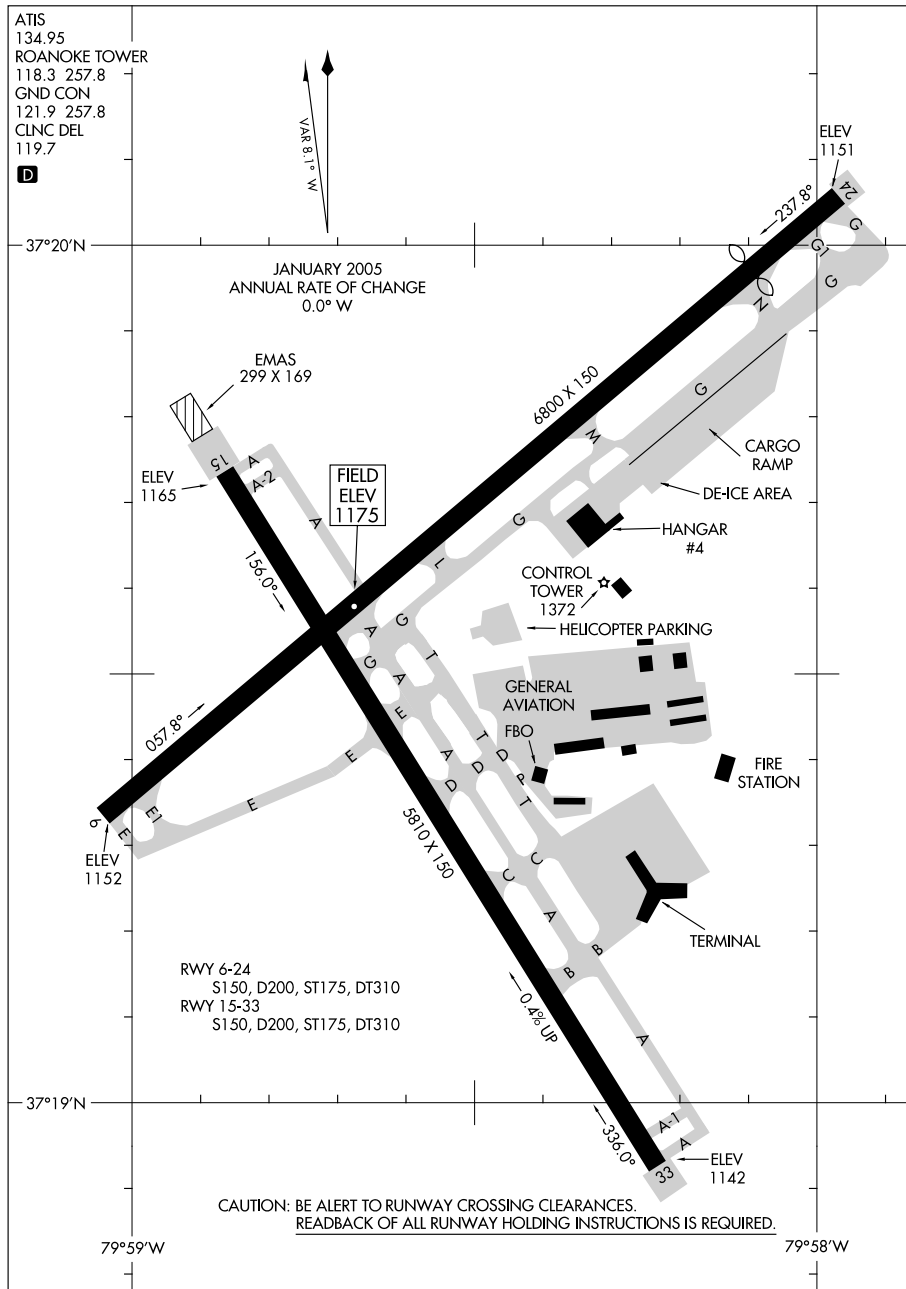
 RICHMOND, VIRGINIA  
 RICHMOND INTL (RIC)

09127

# AIRPORT DIAGRAM

ROANOKE RGNL/WOODRUM FIELD (ROA)  
ROANOKE, VIRGINIA

AL-349 (FAA)



# AIRPORT DIAGRAM

ROANOKE, VIRGINIA  
ROANOKE RGNL/WOODRUM FIELD (ROA)

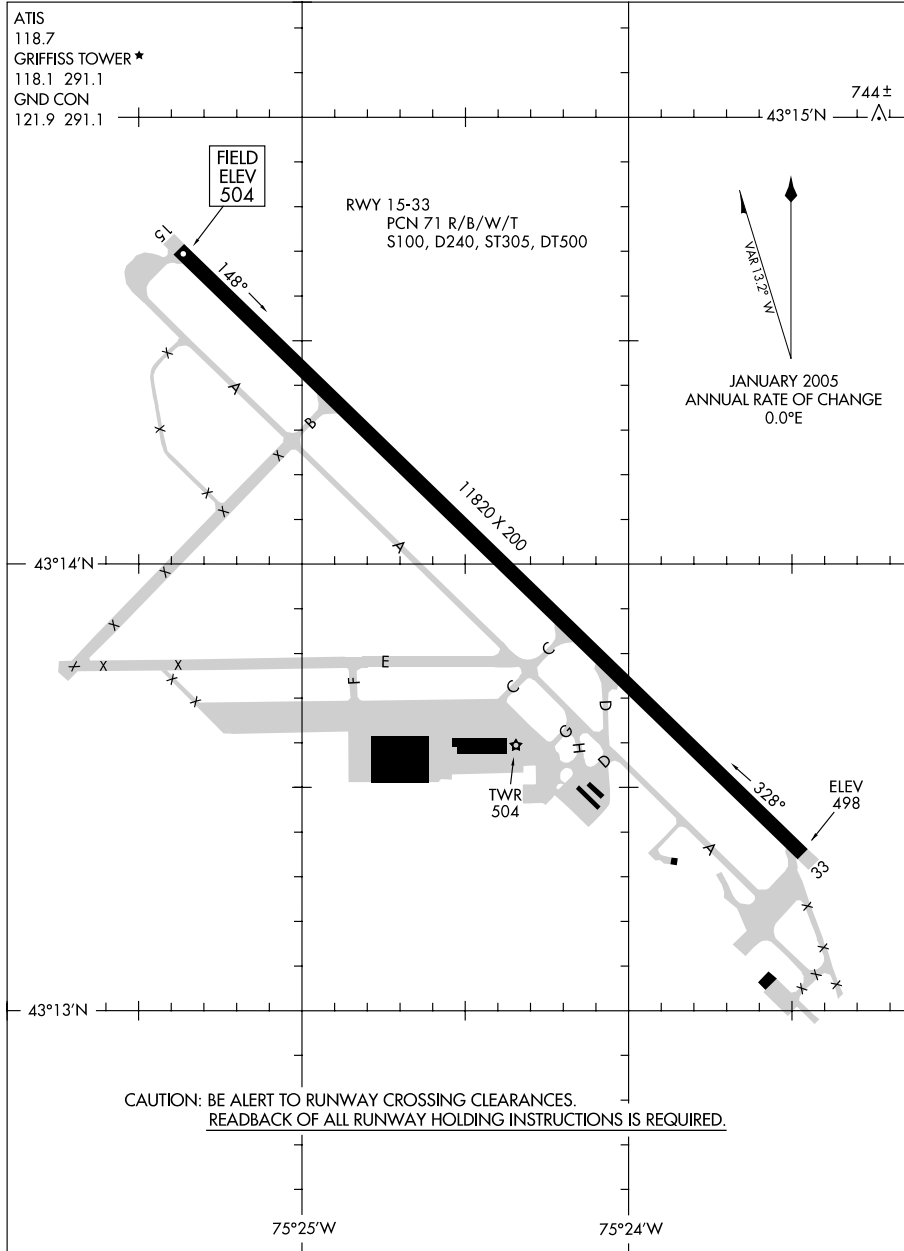
09127



09295

## AIRPORT DIAGRAM

AL-9515 (FAA)

ROME/GRIFFISS INTL (RME)  
ROME, NEW YORK

## AIRPORT DIAGRAM

09295

ROME, NEW YORK  
ROME/GRIFFISS INTL (RME)

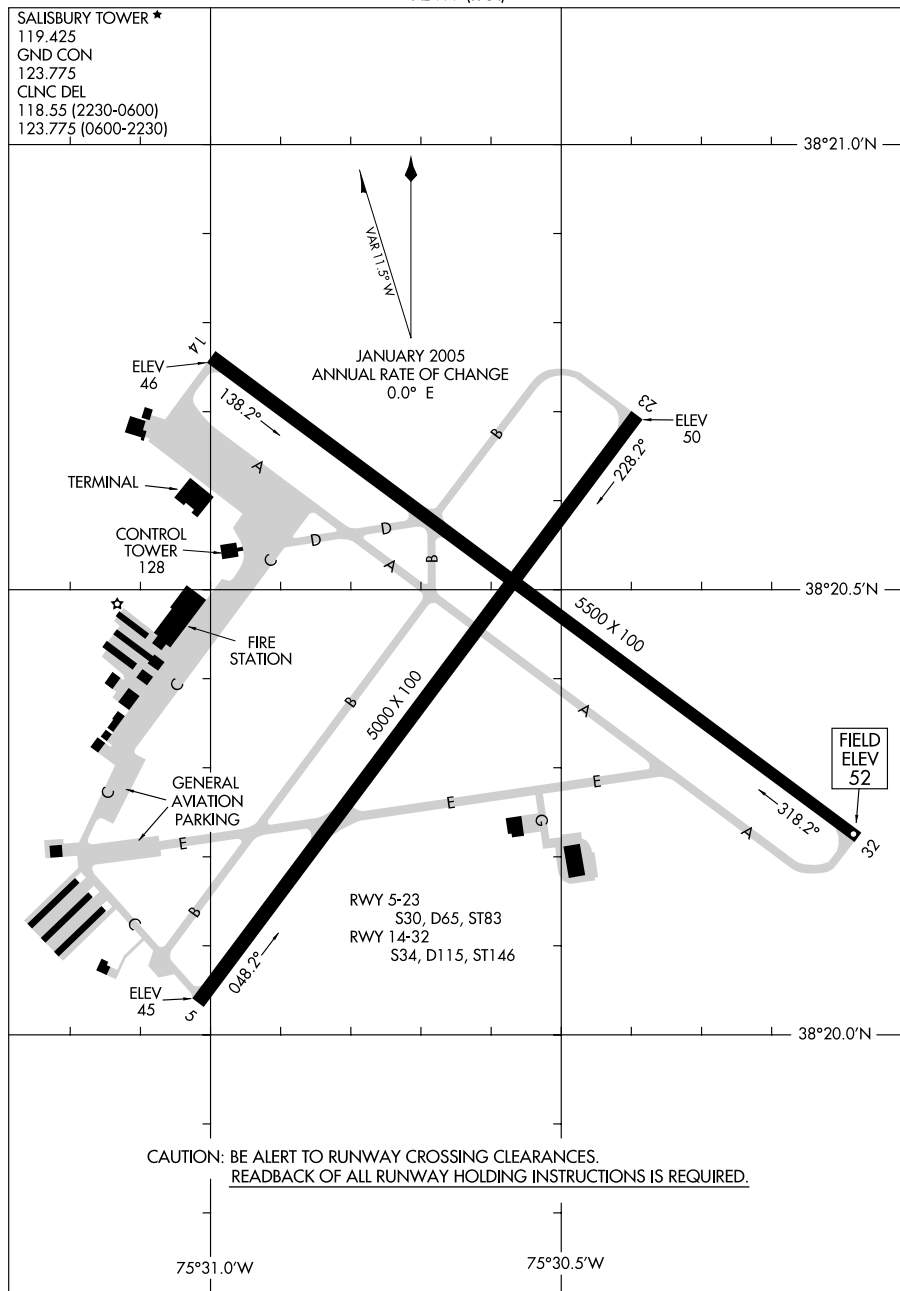
07242

## AIRPORT DIAGRAM

SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)

AL-977 (FAA)

SALISBURY, MARYLAND



## AIRPORT DIAGRAM

07242

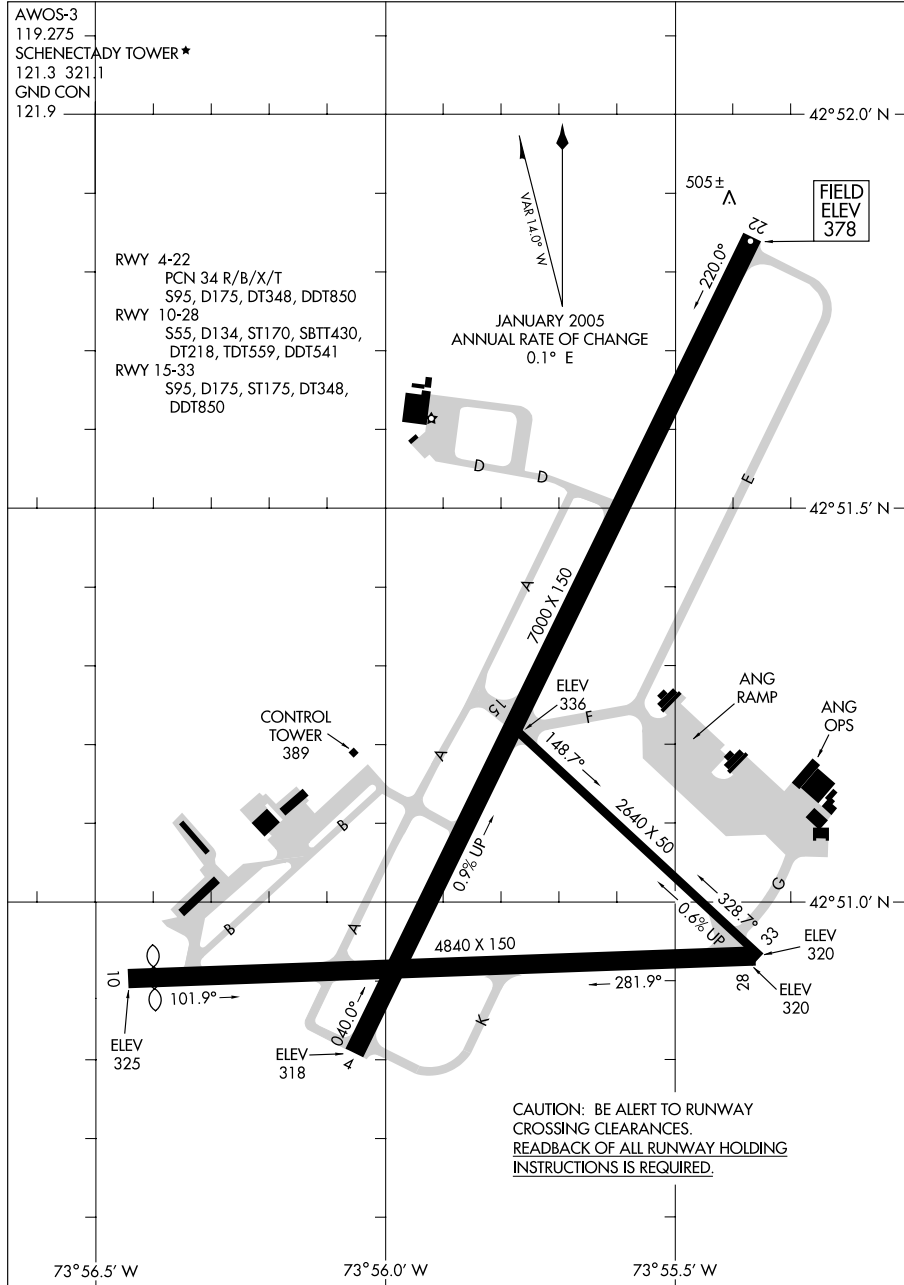
SALISBURY, MARYLAND  
SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)

09183

# AIRPORT DIAGRAM

AL-382 (FAA)

SCHENECTADY COUNTY (SCH)  
SCHENECTADY, NEW YORK



# AIRPORT DIAGRAM

09183

SCHENECTADY, NEW YORK  
SCHENECTADY COUNTY (SCH)



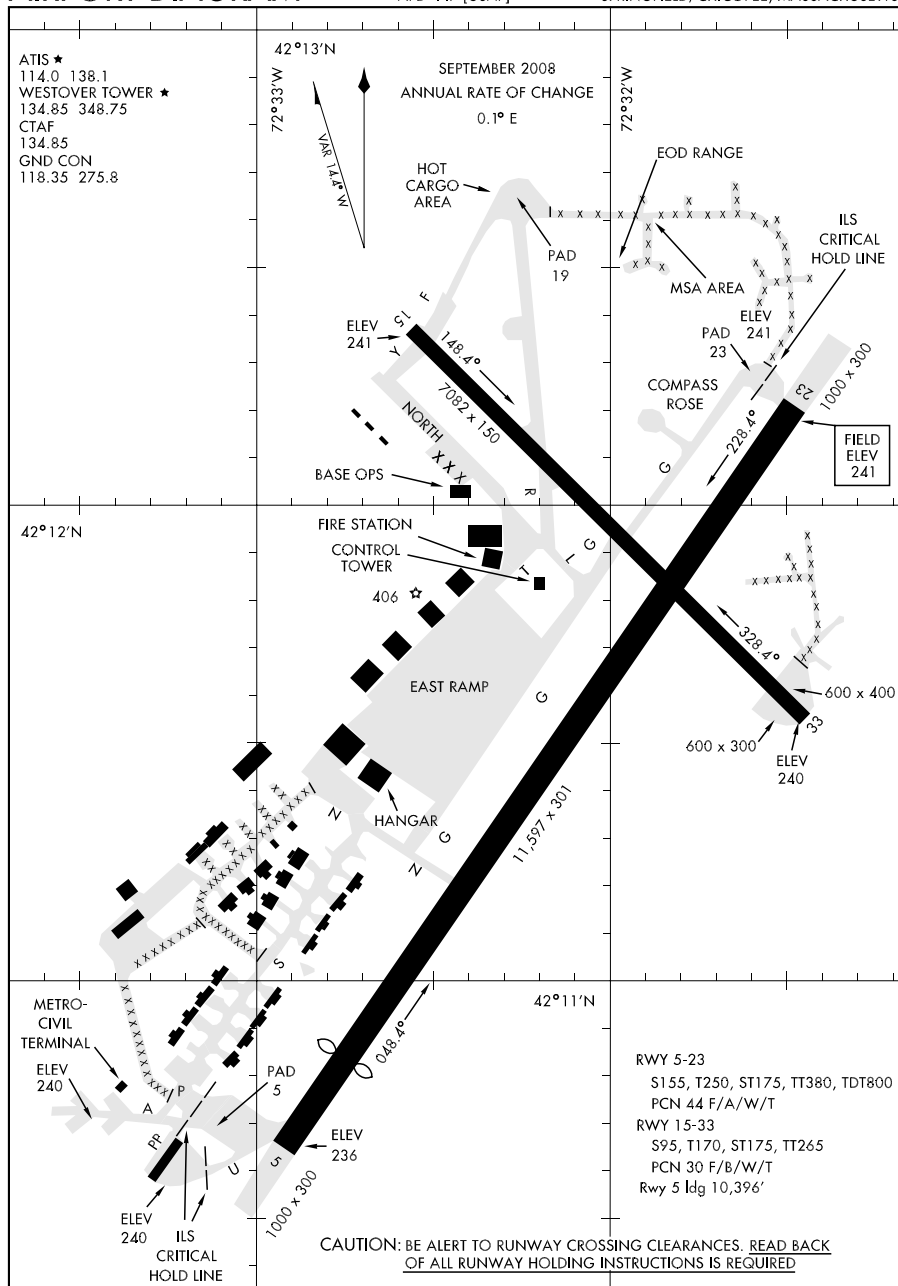
08269

## AIRPORT DIAGRAM

AFD-447 [USAF]

WESTOVER ARB/METROPOLITAN (KCEF)

SPRINGFIELD/CHICOPEE, MASSACHUSETTS



## AIRPORT DIAGRAM

SPRINGFIELD/CHICOPEE, MASSACHUSETTS

WESTOVER ARB/METROPOLITAN (KCEF)

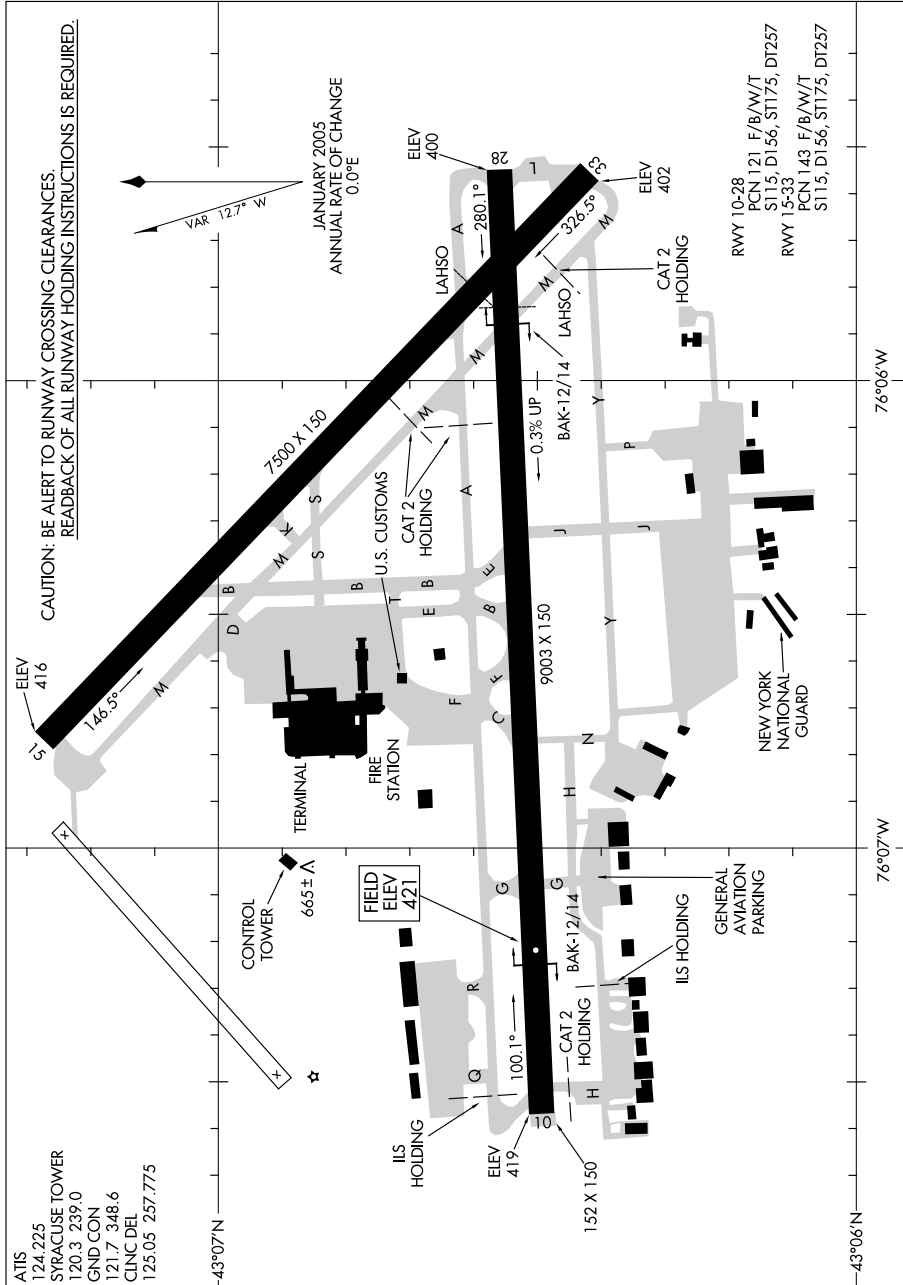
09239

## AIRPORT DIAGRAM

AL-411 (FAA)

SYRACUSE HANCOCK INTL (SYR)

SYRACUSE, NEW YORK



## AIRPORT DIAGRAM

09239

SYRACUSE, NEW YORK  
SYRACUSE HANCOCK INTL (SYR)





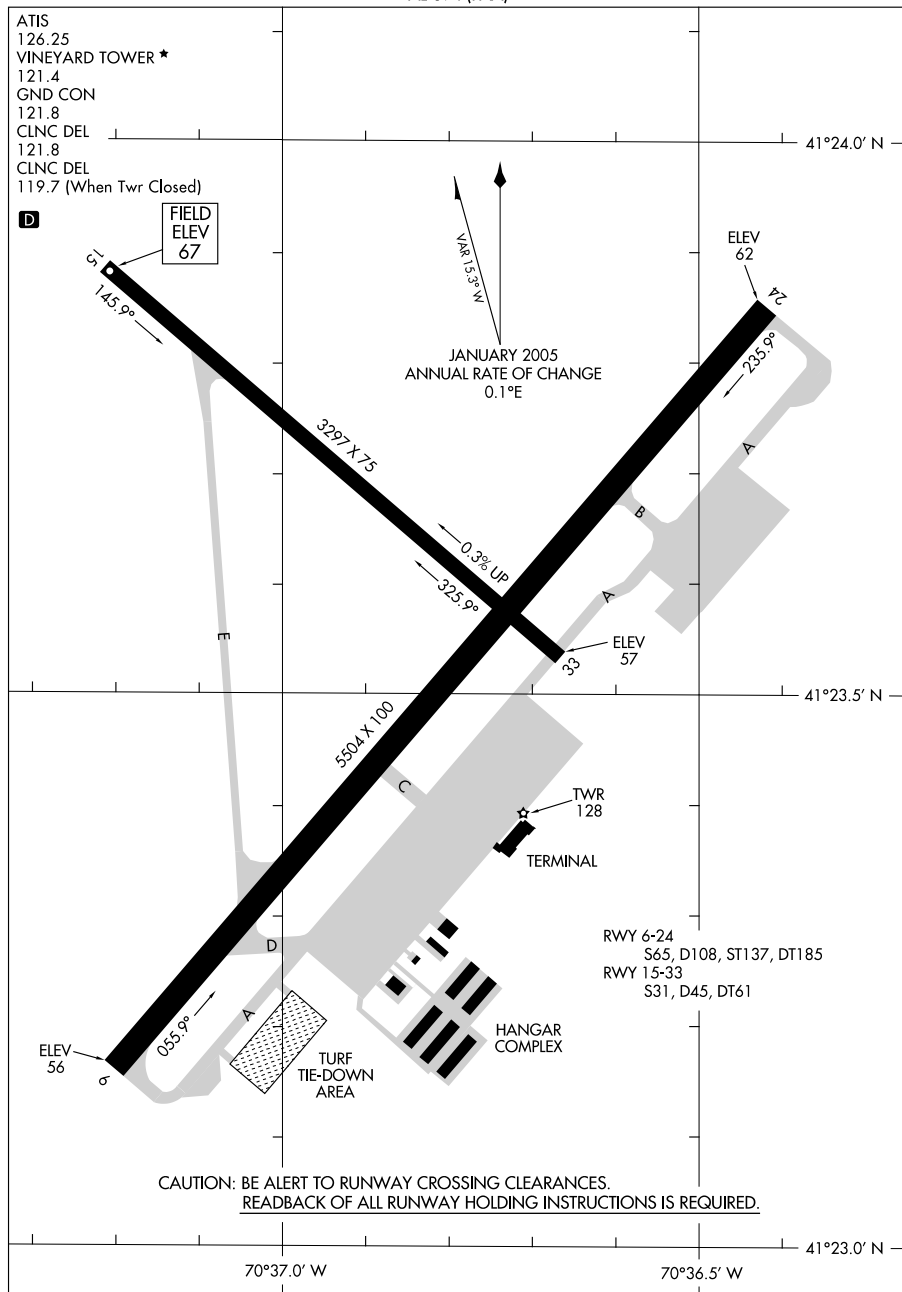
09239

## AIRPORT DIAGRAM

VINEYARD HAVEN / MARTHAS VINEYARD (MVY)

AL-694 (FAA)

VINEYARD HAVEN, MASSACHUSETTS



## AIRPORT DIAGRAM

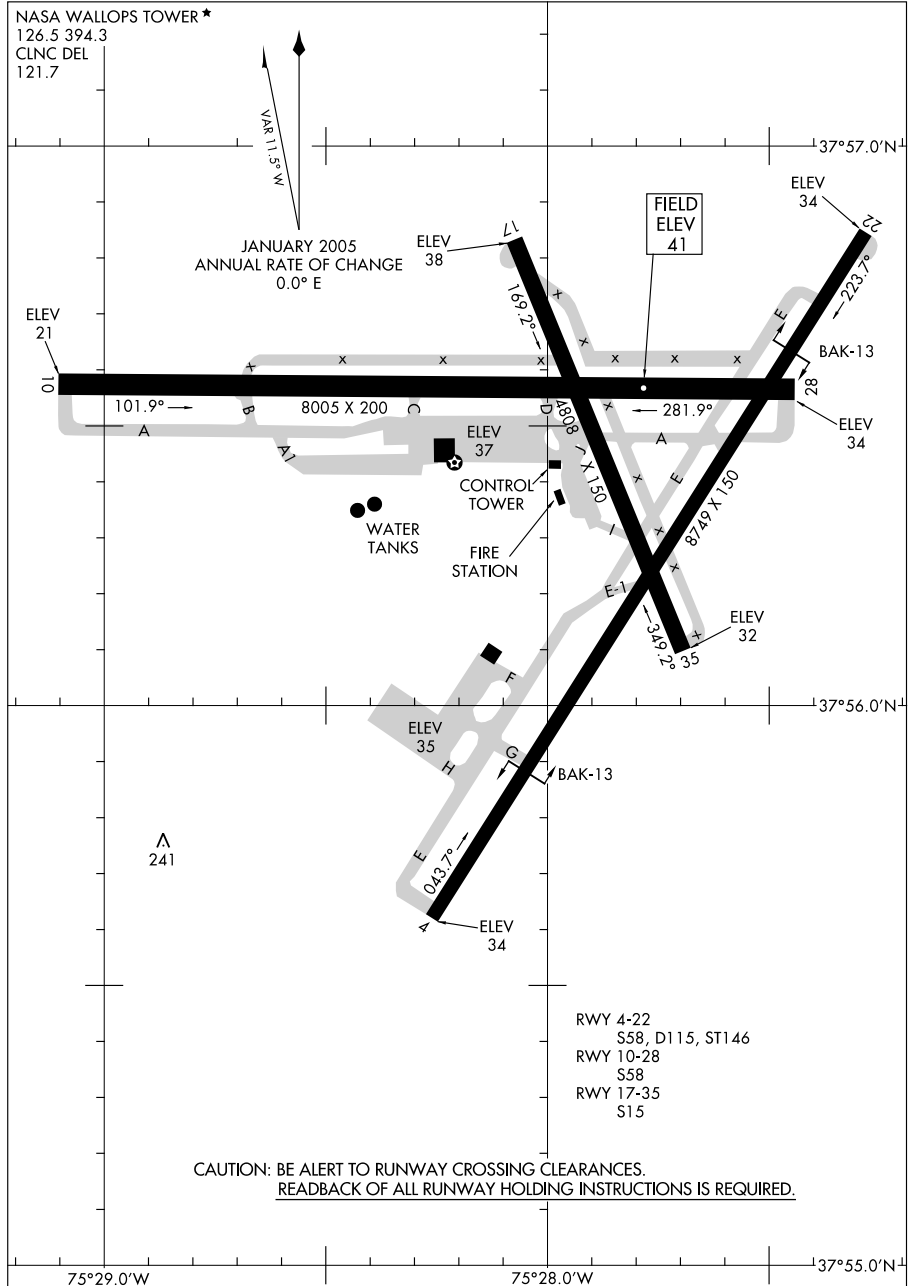
09239

VINEYARD HAVEN, MASSACHUSETTS  
VINEYARD HAVEN / MARTHAS VINEYARD (MVY)

06327

## AIRPORT DIAGRAM

AL-639 (FAA)

WALLOPS FLIGHT FACILITY (WAL)  
WALLOPS ISLAND, VIRGINIA

## AIRPORT DIAGRAM

06327

WALLOPS ISLAND, VIRGINIA  
WALLOPS FLIGHT FACILITY (WAL)

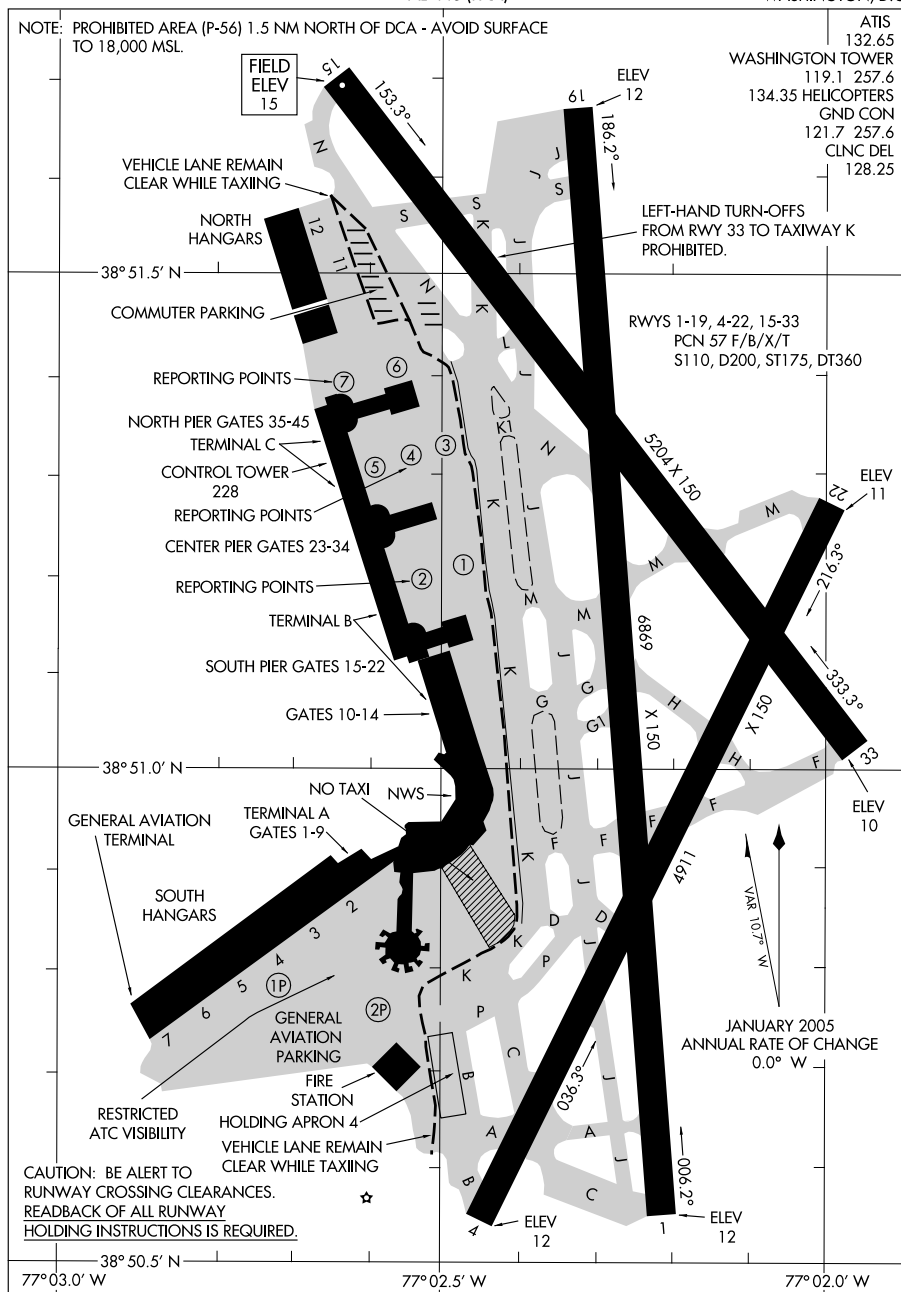
09239

## AIRPORT DIAGRAM

WASHINGTON / RONALD REAGAN WASHINGTON NATIONAL (DCA)

AL-443 (FAA)

WASHINGTON, D.C.



## AIRPORT DIAGRAM

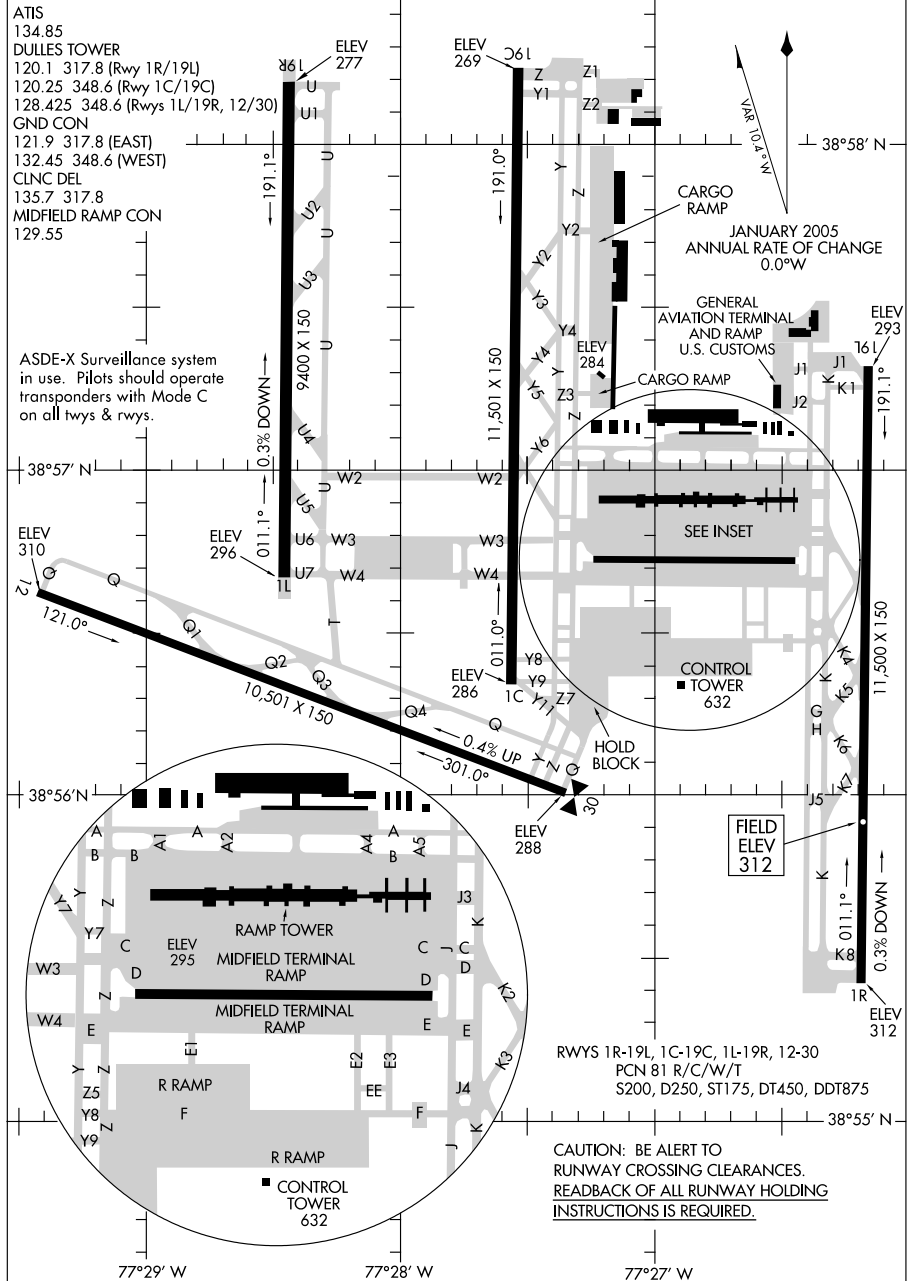
09239

WASHINGTON, D.C.  
WASHINGTON / RONALD REAGAN WASHINGTON NATIONAL (DCA)

09295

## AIRPORT DIAGRAM

AL-5100 (FAA)

WASHINGTON DULLES INTL (IAD)  
WASHINGTON, DC

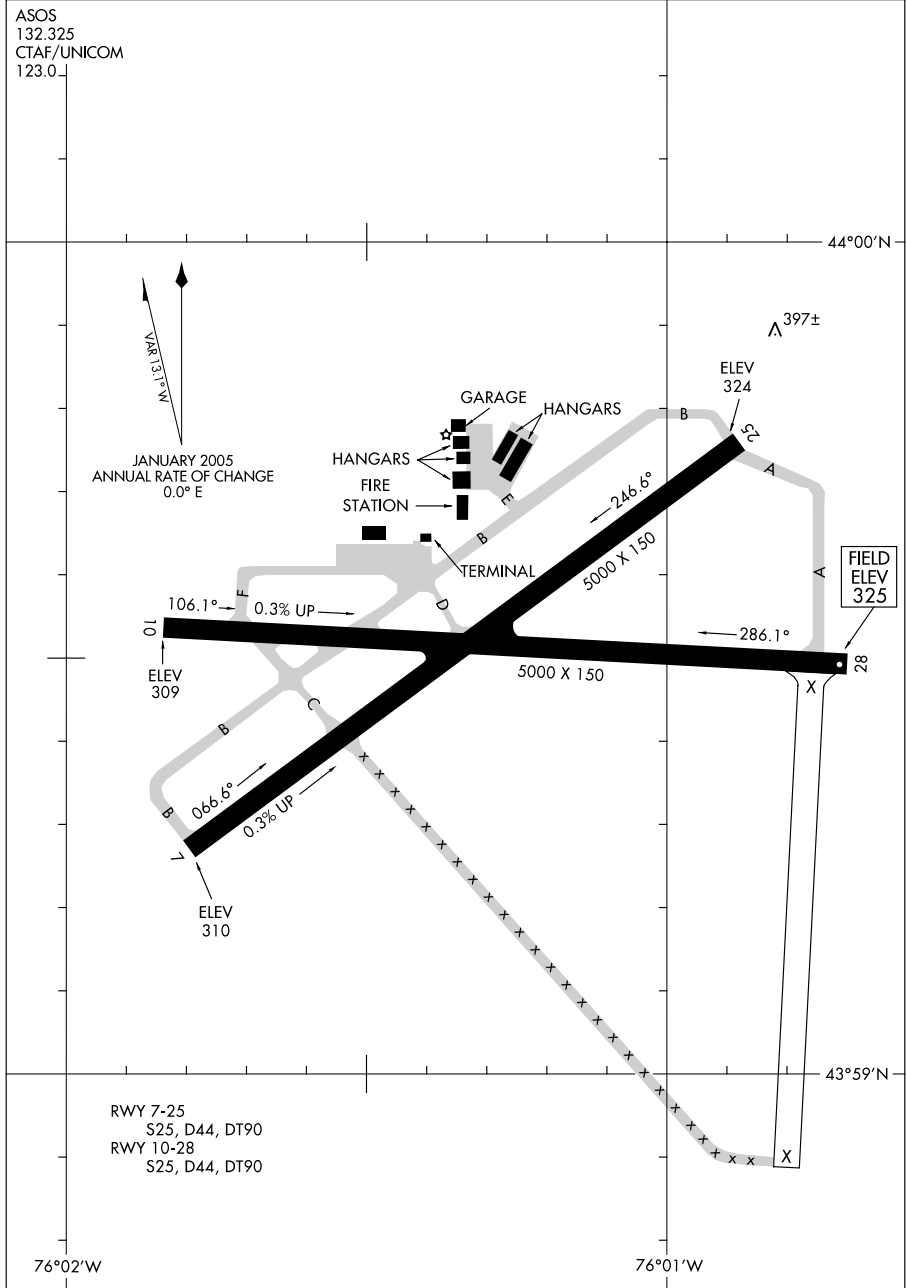


09127

AIRPORT DIAGRAM

AL-666 (FAA)

WATERTOWN INTL (ART)  
WATERTOWN, NEW YORK



AIRPORT DIAGRAM

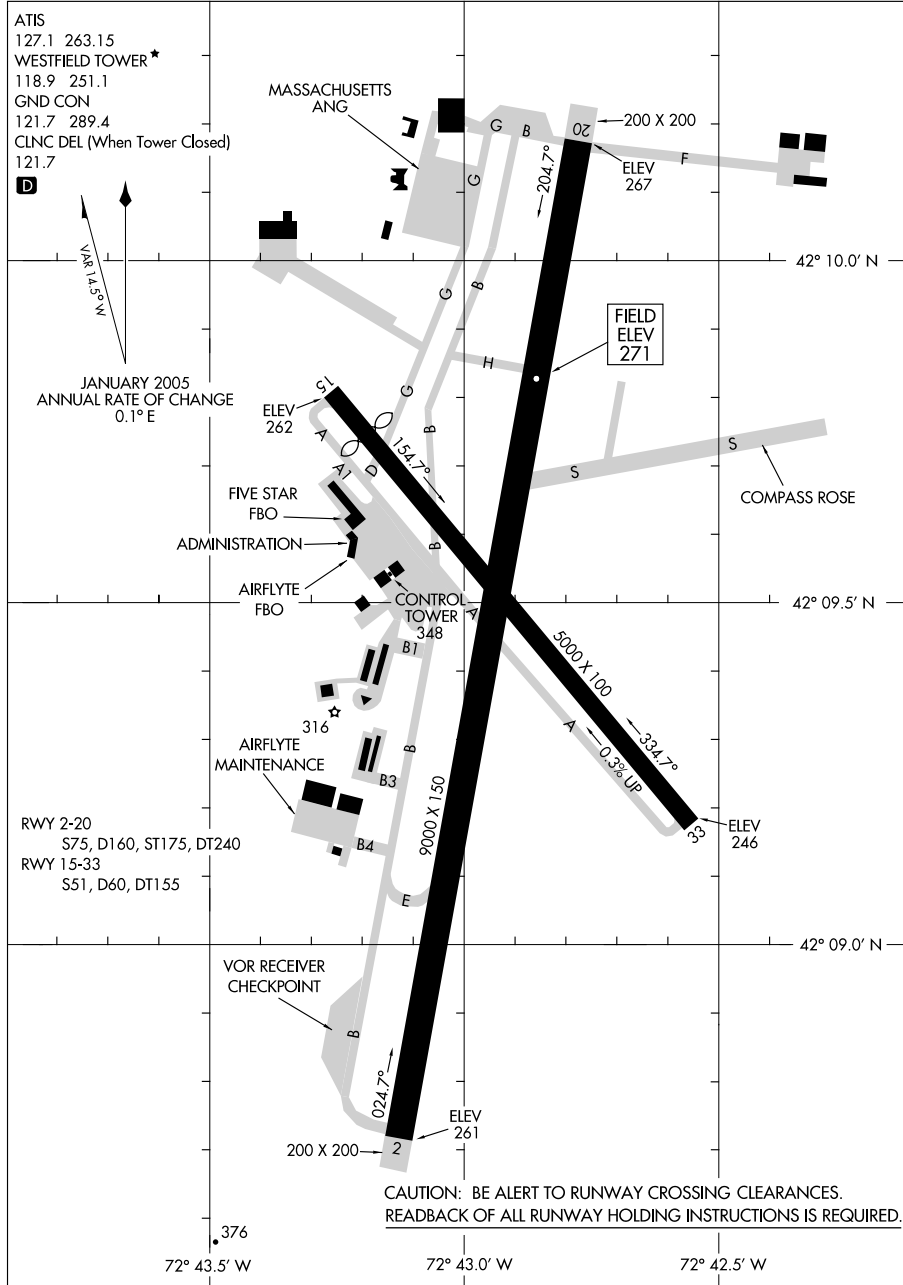
09127

WATERTOWN, NEW YORK  
WATERTOWN INTL (ART)

09239

## AIRPORT DIAGRAM

AL-446 (FAA)

WESTFIELD/BARNES MUNI (BAF)  
WESTFIELD/SPRINGFIELD, MASSACHUSETTS

## AIRPORT DIAGRAM

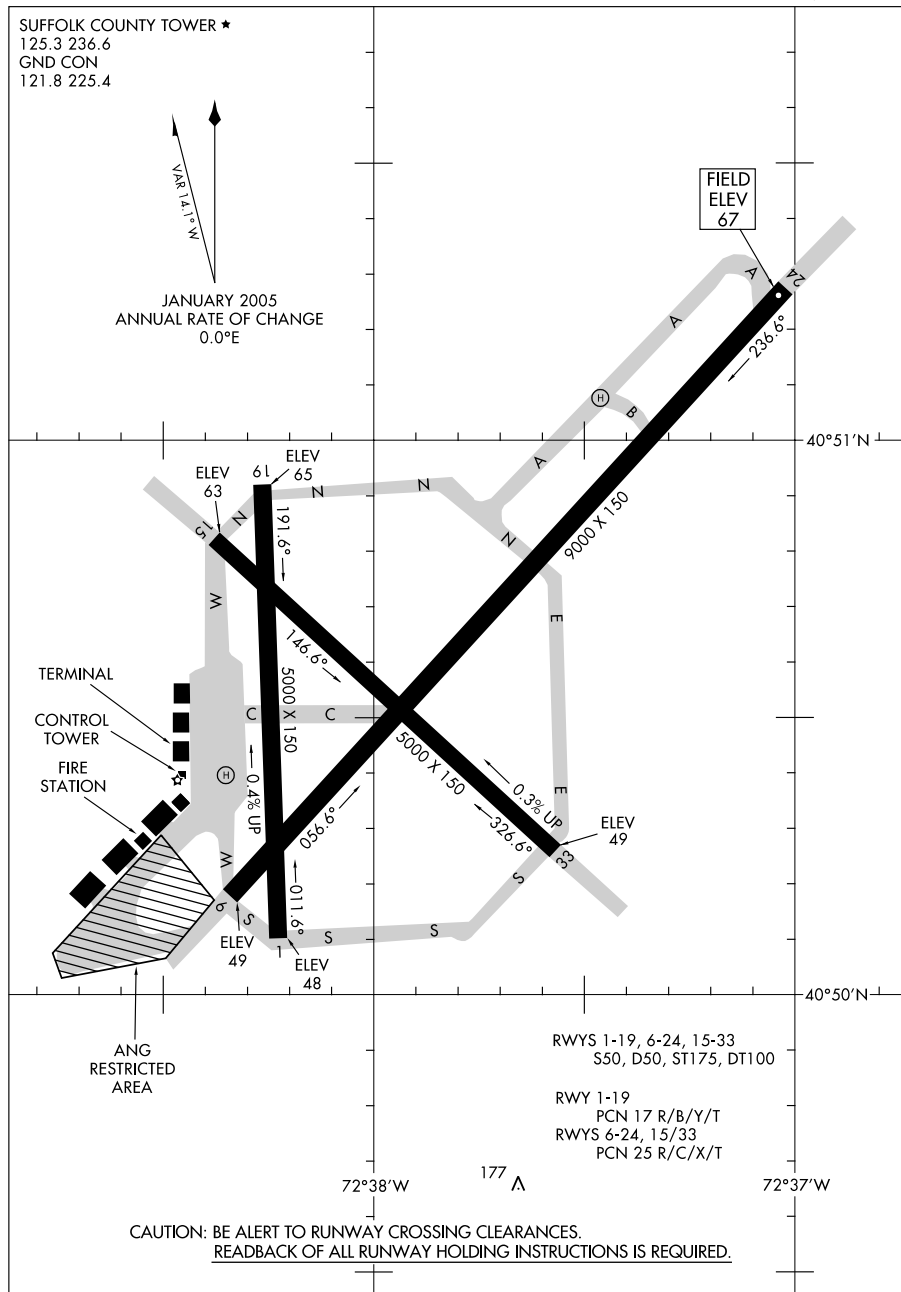
09239

WESTFIELD/SPRINGFIELD, MASSACHUSETTS  
WESTFIELD/BARNES MUNI (BAF)

08045

## AIRPORT DIAGRAM

WESTHAMPTON BEACH/ FRANCIS S. GABRESKI (F'OK)  
AL-996 (FAA) WESTHAMPTON BEACH, NEW YORK



## AIRPORT DIAGRAM

08045

WESTHAMPTON BEACH, NEW YORK  
WESTHAMPTON BEACH/ FRANCIS S. GABRESKI (F'OK)

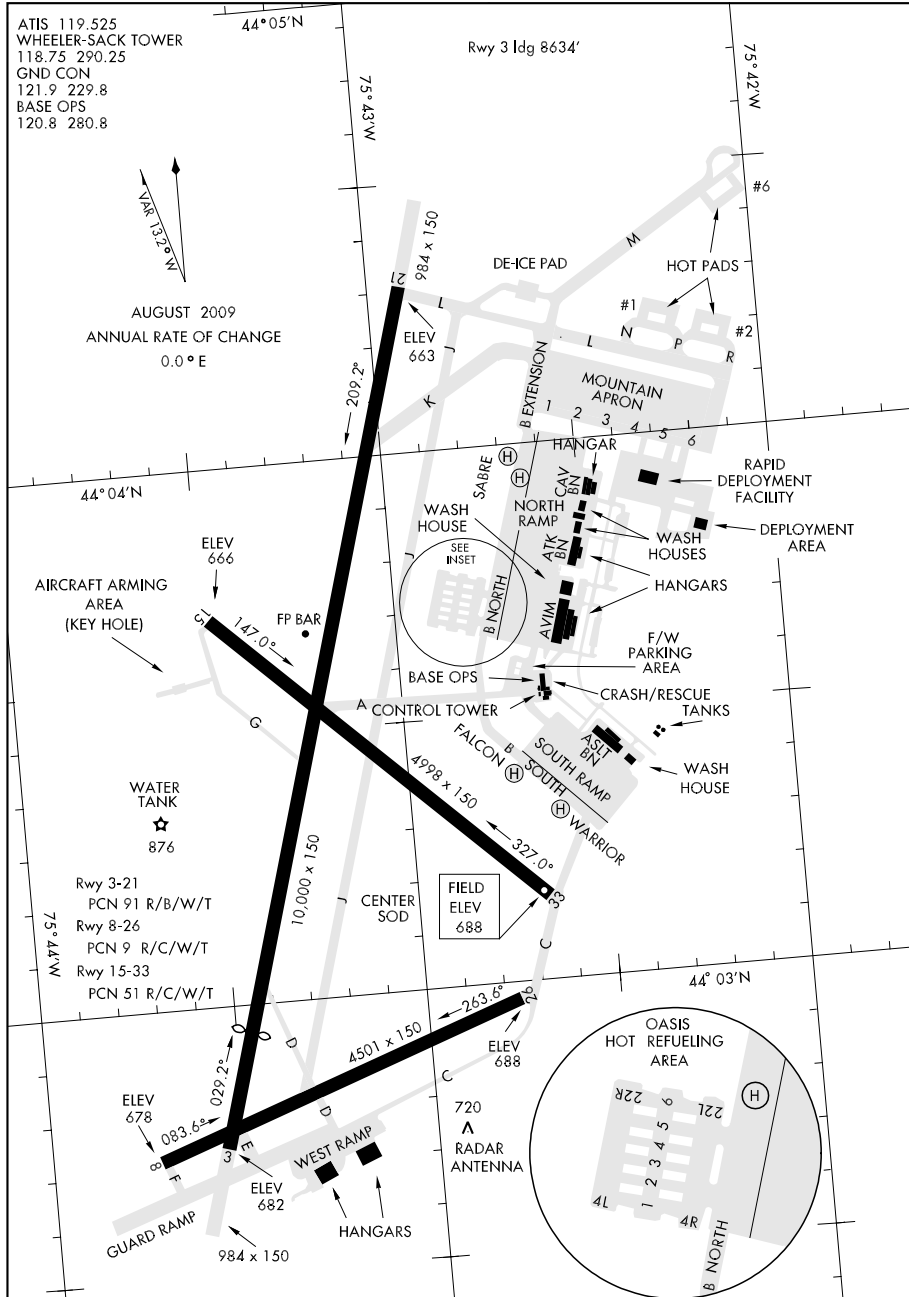
09239

## AIRPORT DIAGRAM

AFD-5754.10 [USA]

WHEELER-SACK AAF (KGTB)

FORT DRUM, NEW YORK



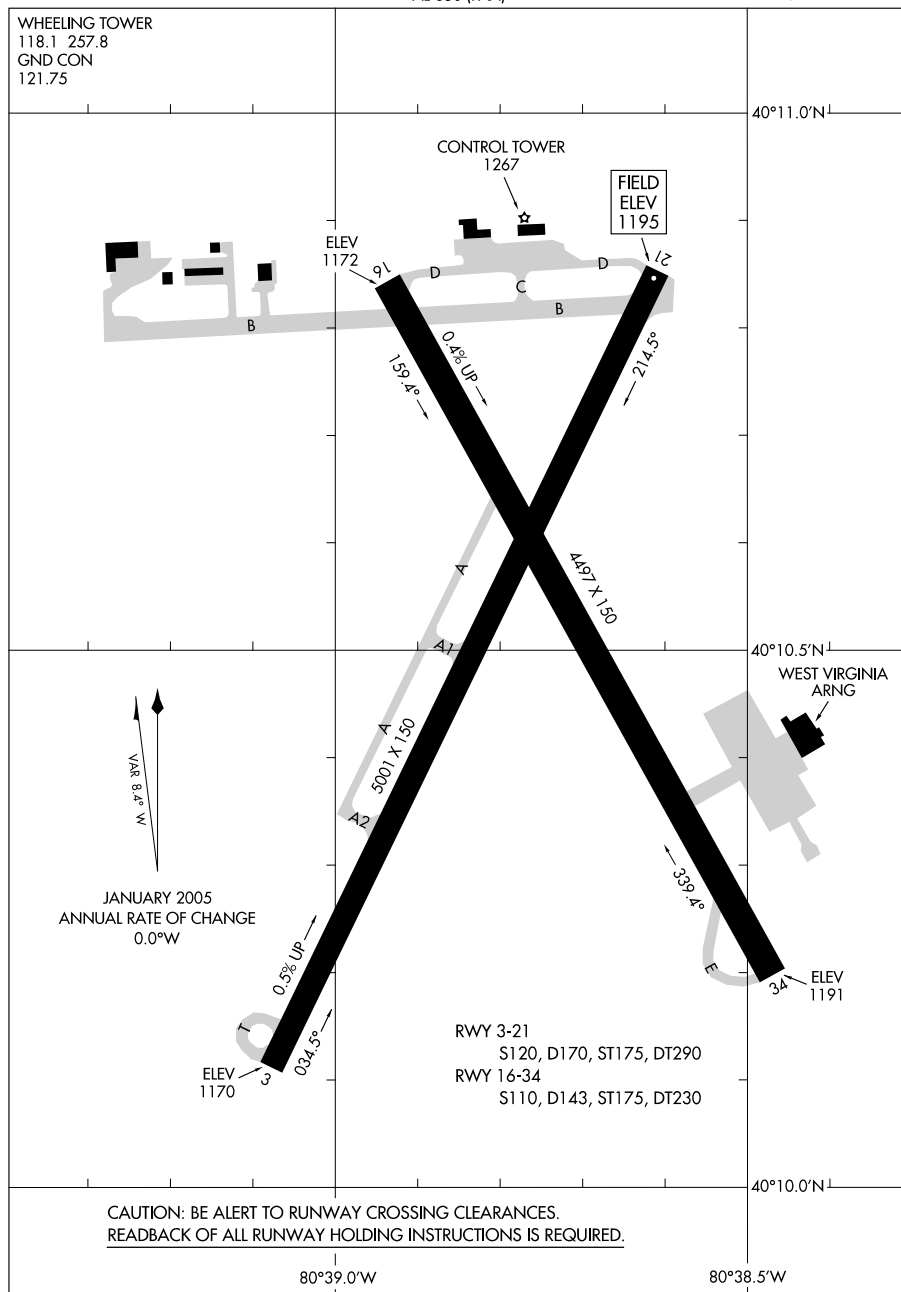
## AIRPORT DIAGRAM

FORT DRUM, NEW YORK  
WHEELER-SACK AAF (KGTB)

06271

## AIRPORT DIAGRAM

AL-650 (FAA)

WHEELING OHIO COUNTY (HLG)  
WHEELING, WEST VIRGINIA

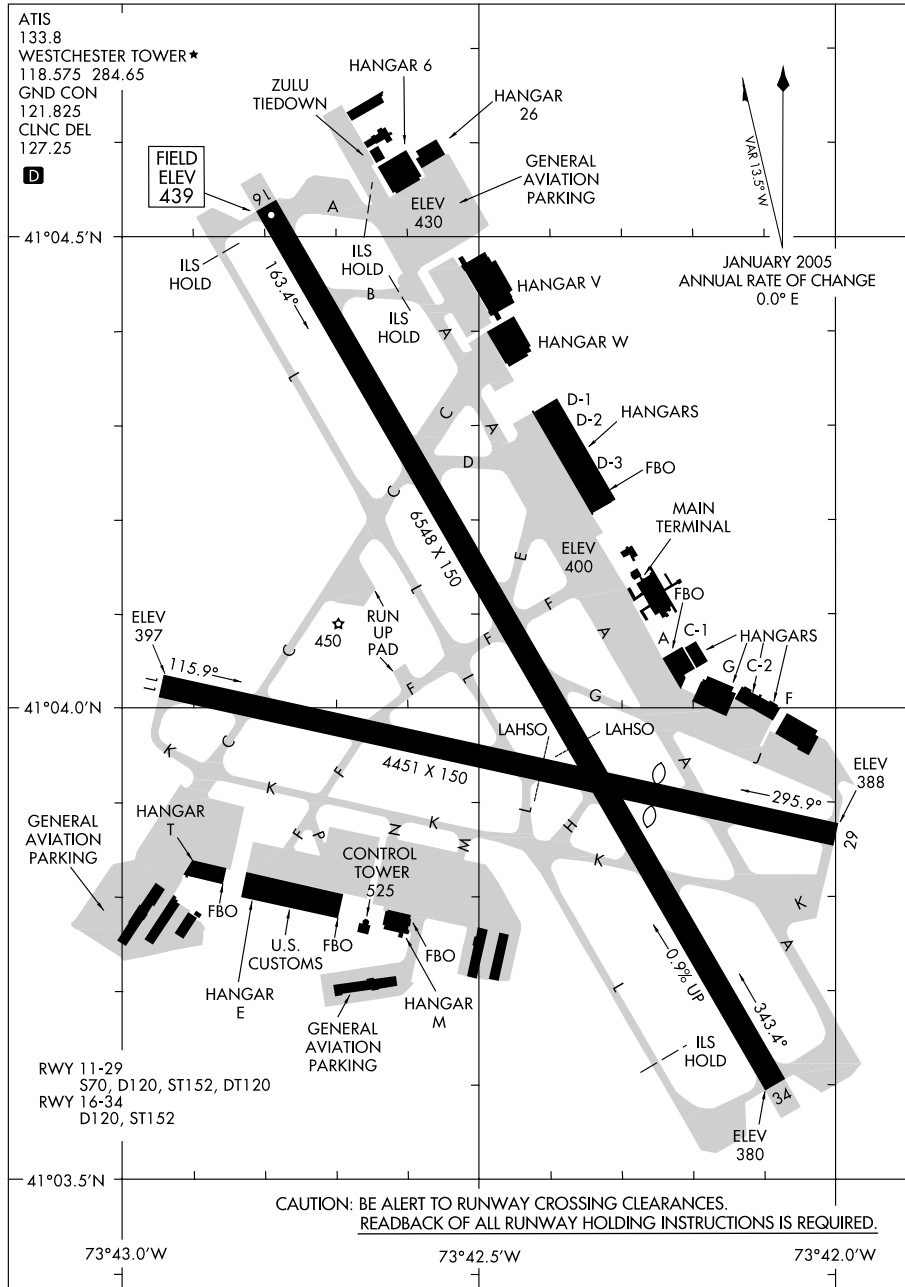
## AIRPORT DIAGRAM

06271

WHEELING, WEST VIRGINIA  
WHEELING OHIO COUNTY (HLG)

09015

## AIRPORT DIAGRAM

WHITE PLAINS/WESTCHESTER COUNTY (HPN)  
AL-651 (FAA) WHITE PLAINS, NEW YORK

## AIRPORT DIAGRAM

09015

WHITE PLAINS, NEW YORK  
WHITE PLAINS/WESTCHESTER COUNTY (HPN)

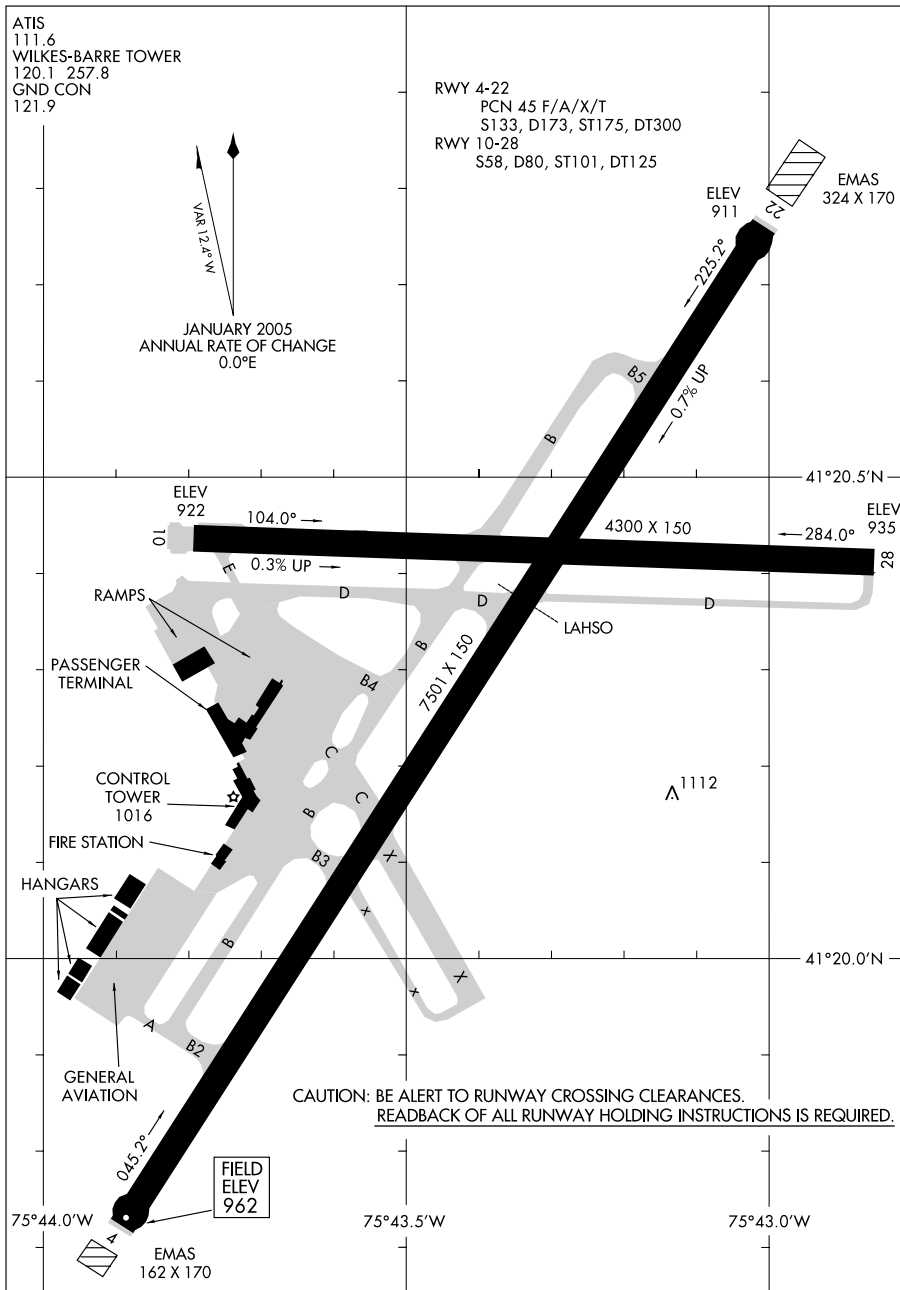
09239

## AIRPORT DIAGRAM

AL-661 (FAA)

WILKES-BARRE/SCRANTON INTL (AVP)

WILKES-BARRE/SCRANTON, PENNSYLVANIA



## AIRPORT DIAGRAM

09239

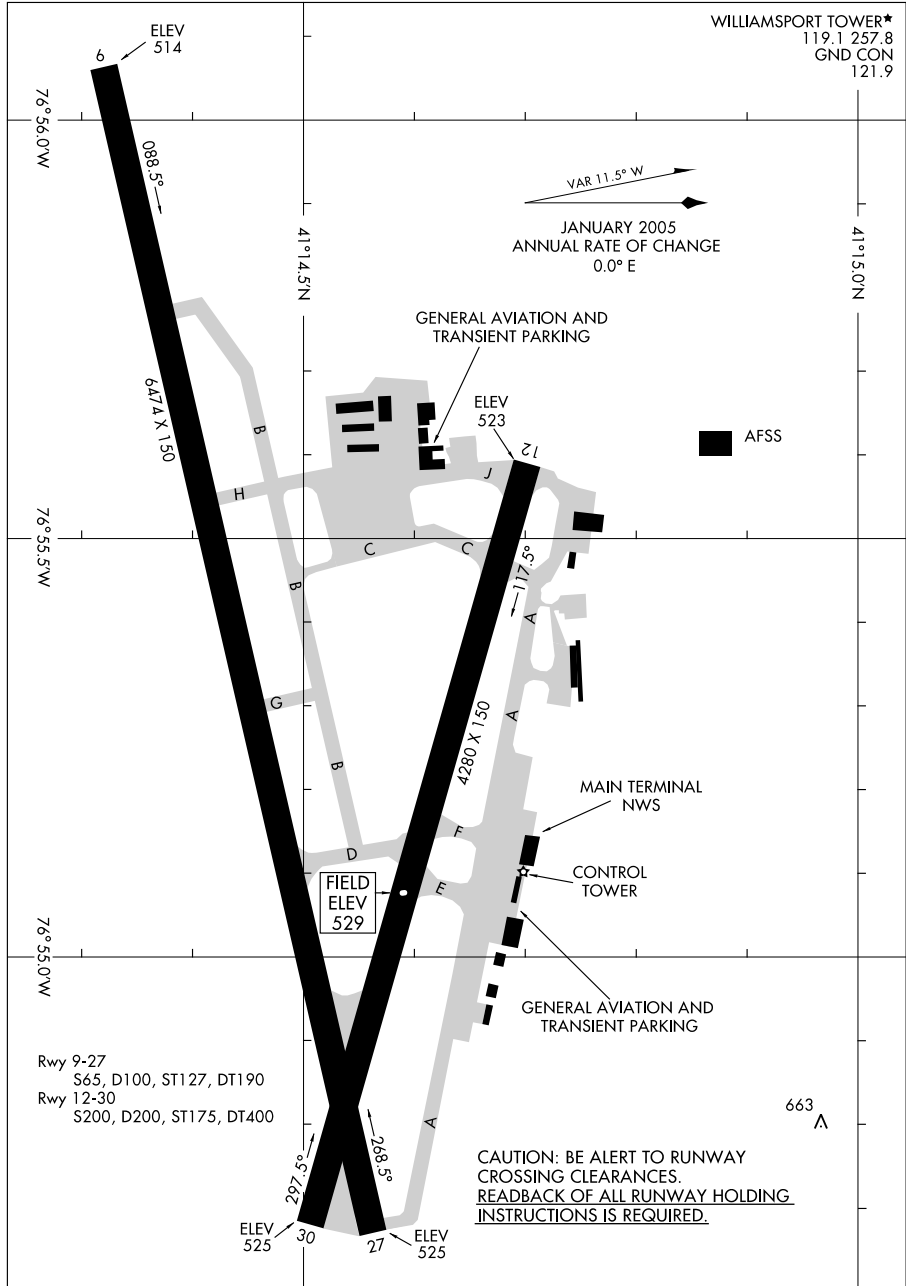
 WILKES-BARRE/SCRANTON, PENNSYLVANIA  
 WILKES-BARRE/SCRANTON INTL (AVP)

07242

# AIRPORT DIAGRAM

AL-457 (FAA)

WILLIAMSPORT RGNL (IPT)  
WILLIAMSPORT, PENNSYLVANIA



# AIRPORT DIAGRAM

07242

WILLIAMSPORT, PENNSYLVANIA  
WILLIAMSPORT RGNL (IPT)



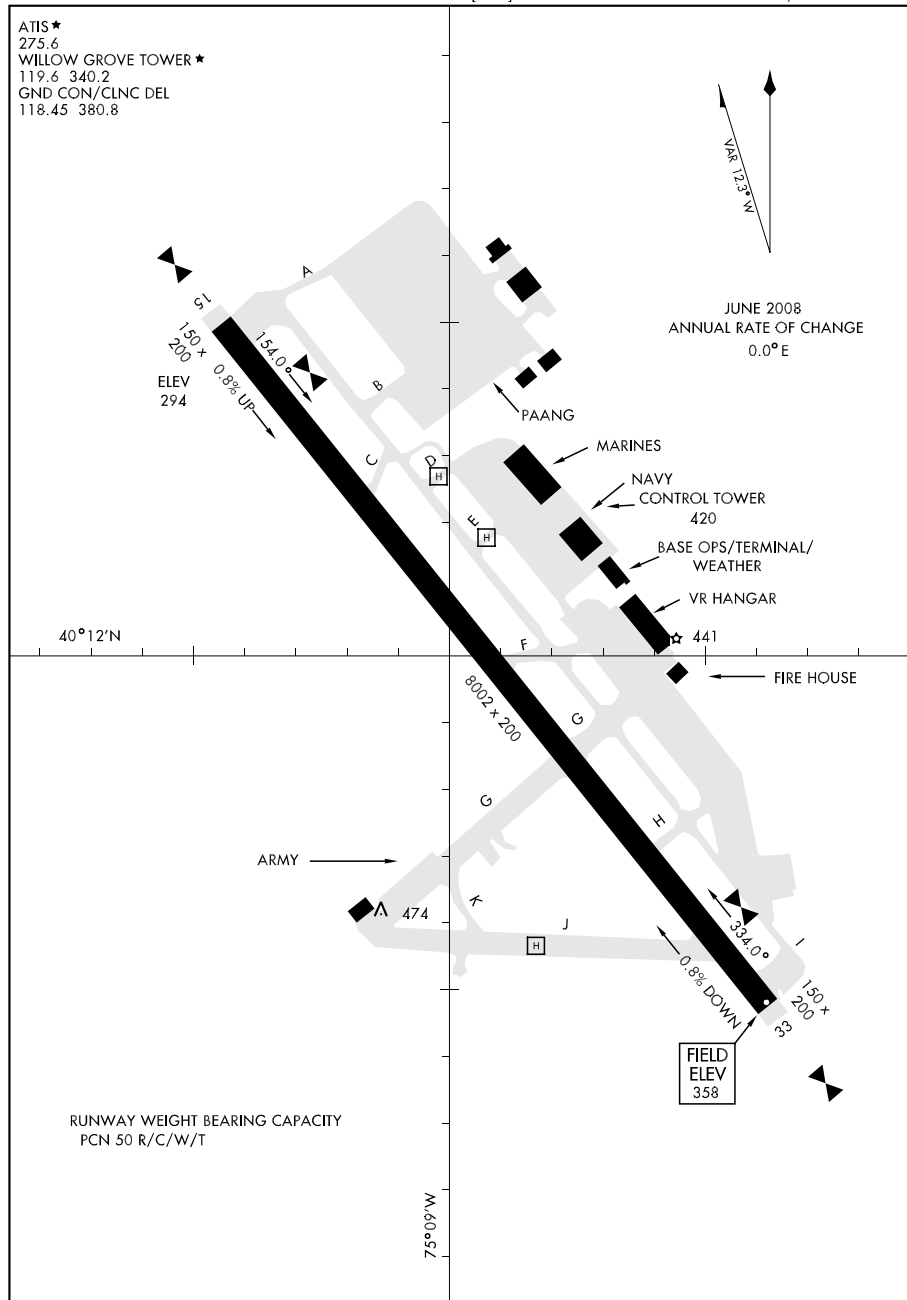
08213

## AIRPORT DIAGRAM

AFD-598 [USN]

WILLOW GROVE NAS JRB (KNXX)

WILLOW GROVE, PENNSYLVANIA



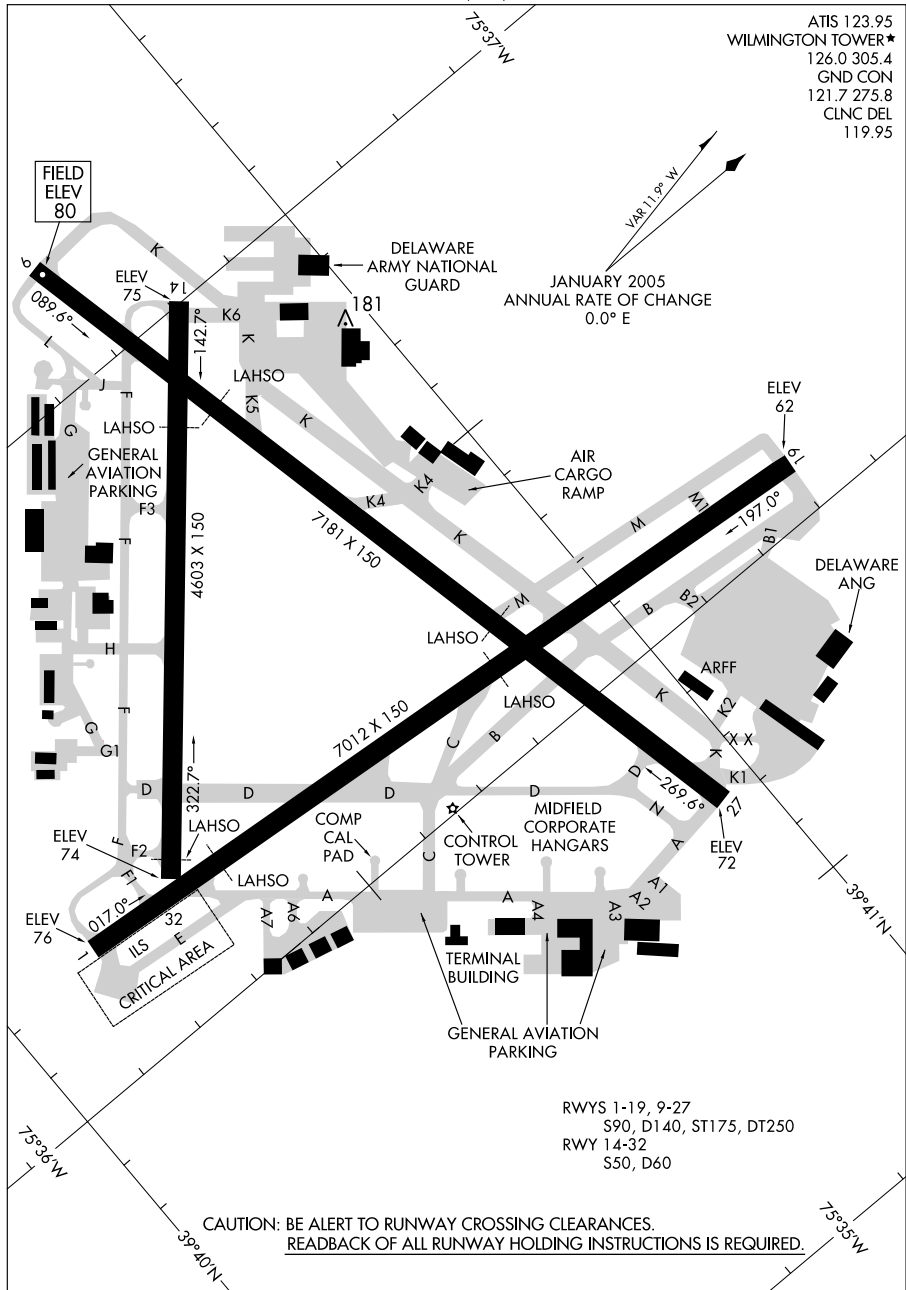
## AIRPORT DIAGRAM

WILLOW GROVE, PENNSYLVANIA  
WILLOW GROVE NAS JRB (KNXX)

07130

# AIRPORT DIAGRAM

WILMINGTON/ NEW CASTLE (ILG)  
WILMINGTON, DELAWARE



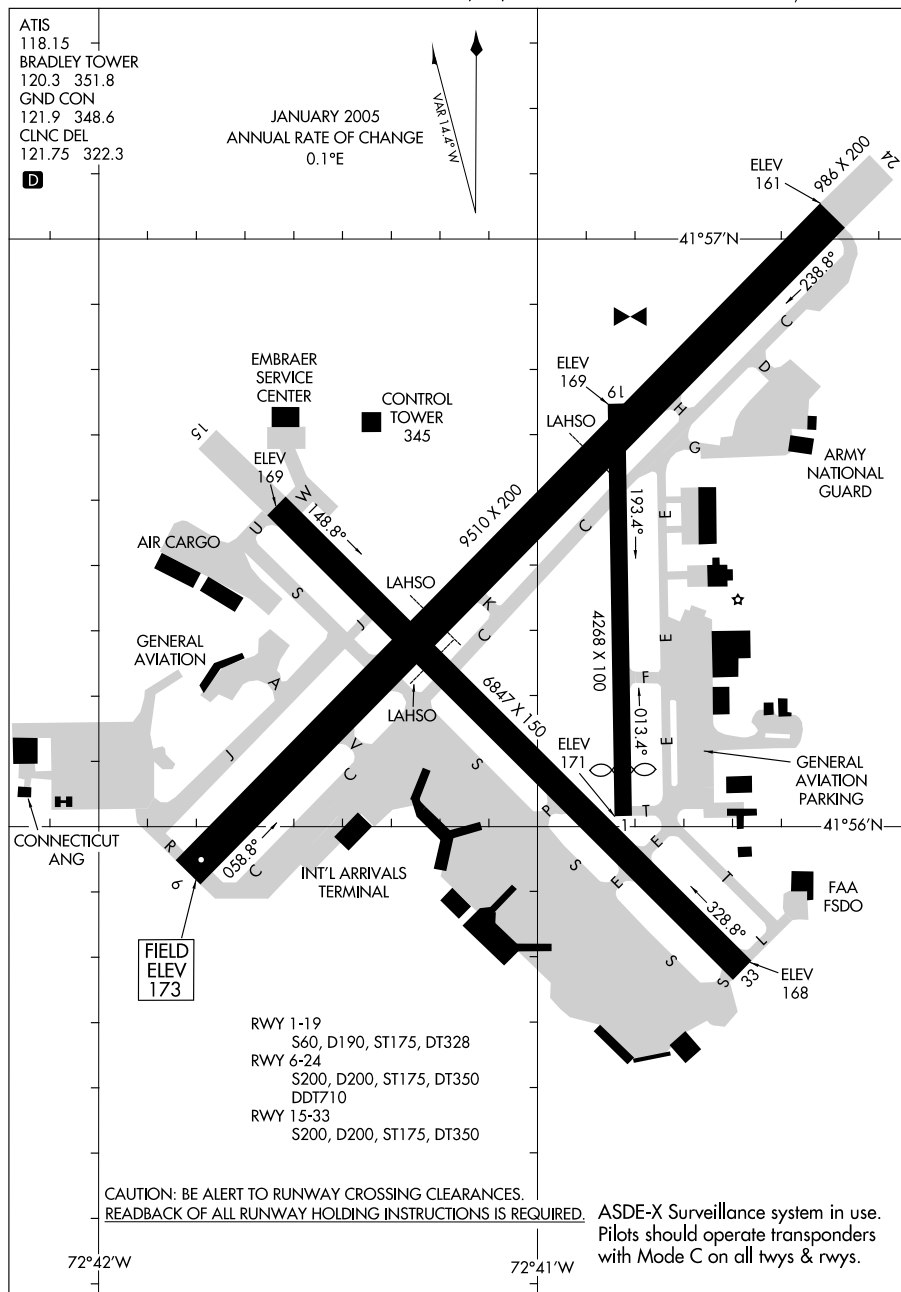
# AIRPORT DIAGRAM

07130

WILMINGTON, DELAWARE  
WILMINGTON/ NEW CASTLE (ILG)

09239

## AIRPORT DIAGRAM

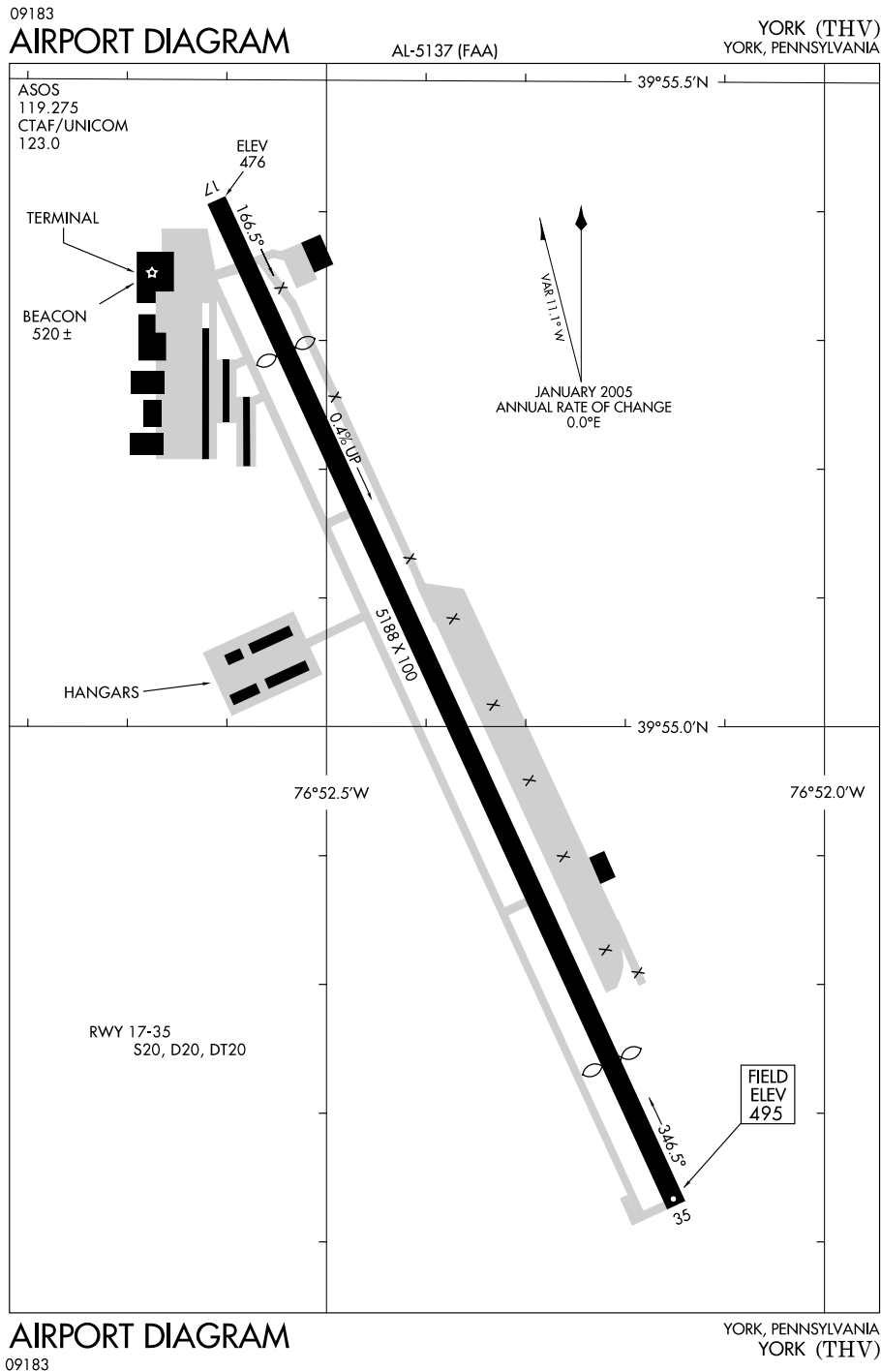
WINDSOR LOCKS / BRADLEY INTL (BDL)  
WINDSOR LOCKS, CONNECTICUT

## AIRPORT DIAGRAM

09239

WINDSOR LOCKS, CONNECTICUT  
WINDSOR LOCKS / BRADLEY INTL (BDL)





**INTENTIONALLY  
LEFT  
BLANK**

|

NATIONAL WEATHER SERVICE (NWS)  
UPPER AIR OBSERVING STATION (UAOS)  
AND  
WEATHER RADAR NETWORK



LEGEND

- △ AVIATION WEATHER SERVICE (MILITARY)
- ▲ AIR TRAFFIC CONTROL RADAR
- ★ UPPER AIR OBSERVING STATION/RADAR
- RADAR ONLY
- UAOS-BALLOON RELEASE AROUND 1100 UTC AND 2300 UTC DAILY
- OTHER NWS UPPER AIR STATIONS-BALLOON RELEASE TIMES ARE FLEXIBLE BUT GENERALLY AROUND SUNRISE AND/OR EARLY AFTERNOON

NOTE: FOR RELEASES LATER THAN 1130 UTC AND 2330 UTC, AND FOR SPECIAL RELEASES AT OTHER THAN THE SCHEDULED HOURS, AN AERONAUTICAL INFORMATION MESSAGE WILL BE FILED.